

## SEQUENCE LISTING

&lt;110&gt; Bayer AG

&lt;120&gt; METHODS AND COMPOSITIONS FOR THE PREDICTION, DIAGNOSIS, PROGNOSIS, PREVENTION AND TREATMENT OF MALIGNANT NEOPLASIA

&lt;130&gt; BHC031051

&lt;160&gt; 512

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 3846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 7

&lt;211&gt; 2020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 7

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&lt;210&gt; 8

&lt;211&gt; 1730

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 8

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&lt;210&gt; 9

&lt;211&gt; 3799

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 9

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&lt;210&gt; 10

&lt;211&gt; 4530

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 10

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&lt;213&gt; Homo sapiens

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&lt;211&gt; 2355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

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&lt;211&gt; 4119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

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&lt;211&gt; 2653

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 18

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&lt;210&gt; 19

&lt;211&gt; 2907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 19

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&lt;211&gt; 2096

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (23) .. (23)

&lt;223&gt; n=a, c, g or t

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (27) .. (27)

&lt;223&gt; n=a, c, g or t

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (80) .. (80)

&lt;223&gt; n=a, c, g or t

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (120) .. (120)

&lt;223&gt; n=a, c, g or t

&lt;400&gt; 20

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&lt;211&gt; 2160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

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&lt;210&gt; 22

&lt;211&gt; 2215

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 22

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&lt;211&gt; 958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

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&lt;211&gt; 6483

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 24

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&lt;210&gt; 25

&lt;211&gt; 1871

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 25

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&lt;210&gt; 26

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 26

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&lt;210&gt; 27

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 27

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Met Asn Pro Asn Cys Ala Arg Cys Gly Lys Ile Val Tyr Pro Thr Glu
1      5      10      15
Lys Val Asn Cys Leu Asp Lys Phe Trp His Lys Ala Cys Phe His Cys
      20      25      30
Glu Thr Cys Lys Met Thr Leu Asn Met Lys Asn Tyr Lys Gly Tyr Glu
      35      40      45
Lys Lys Pro Tyr Cys Asn Ala His Tyr Pro Lys Gln Ser Phe Thr Met
      50      55      60
Val Ala Asp Thr Pro Glu Asn Leu Arg Leu Lys Gln Gln Ser Glu Leu
      65      70      75      80
Gln Ser Gln Val Arg Tyr Lys Glu Glu Phe Glu Lys Asn Lys Gly Lys
      85      90      95
Gly Phe Ser Val Val Ala Asp Thr Pro Glu Leu Gln Arg Ile Lys Lys
      100      105      110
Thr Gln Asp Gln Ile Ser Asn Ile Lys Tyr His Glu Glu Phe Glu Lys
      115      120      125
Ser Arg Met Gly Pro Ser Gly Gly Glu Gly Met Glu Pro Glu Arg Arg
      130      135      140
Asp Ser Gln Asp Gly Ser Ser Tyr Arg Arg Pro Leu Glu Gln Gln Gln
      145      150      155      160
Pro His His Ile Pro Thr Ser Ala Pro Val Tyr Gln Gln Pro Gln Gln
      165      170      175
Gln Pro Val Ala Gln Ser Tyr Gly Gly Tyr Lys Glu Pro Ala Ala Pro
      180      185      190
Val Ser Ile Gln Arg Ser Ala Pro Gly Gly Gly Gly Lys Arg Tyr Arg
      195      200      205
Ala Val Tyr Asp Tyr Ser Ala Ala Asp Glu Asp Glu Val Ser Phe Gln
      210      215      220
Asp Gly Asp Thr Ile Val Asn Val Gln Gln Ile Asp Asp Gly Trp Met
      225      230      235      240
Tyr Gly Thr Val Glu Arg Thr Gly Asp Thr Gly Met Leu Pro Ala Asn
      245      250      255
Tyr Val Glu Ala Ile
      260

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&lt;210&gt; 28

&lt;211&gt; 478

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 28

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Met Val Gln Lys Thr Ser Met Ser Arg Gly Pro Tyr Pro Pro Ser Gln
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Glu Ile Pro Met Glu Val Phe Asp Pro Ser Pro Gln Gly Lys Tyr Ser
20      25      30
Lys Arg Lys Gly Arg Phe Lys Arg Ser Asp Gly Ser Thr Ser Ser Asp
35      40      45
Thr Thr Ser Asn Ser Phe Val Arg Gln Gly Ser Ala Glu Ser Tyr Thr
50      55      60
Ser Arg Pro Ser Asp Ser Asp Val Ser Leu Glu Glu Asp Arg Glu Ala
65      70      75      80
Leu Arg Lys Glu Ala Glu Arg Gln Ala Leu Ala Gln Leu Glu Lys Ala
85      90      95
Lys Thr Lys Pro Val Ala Phe Ala Val Arg Thr Asn Val Gly Tyr Asn
100     105     110
Pro Ser Pro Gly Asp Glu Val Pro Val Gln Gly Val Ala Ile Thr Phe
115     120     125
Glu Pro Lys Asp Phe Leu His Ile Lys Glu Lys Tyr Asn Asn Asp Trp
130     135     140
Trp Ile Gly Arg Leu Val Lys Glu Gly Cys Glu Val Gly Phe Ile Pro
145     150     155     160
Ser Pro Val Lys Leu Asp Ser Leu Arg Leu Leu Gln Glu Gln Lys Leu
165     170     175
Arg Gln Asn Arg Leu Gly Ser Ser Lys Ser Gly Asp Asn Ser Ser Ser
180     185     190
Ser Leu Gly Asp Val Val Thr Gly Thr Arg Arg Pro Thr Pro Pro Ala
195     200     205
Ser Ala Lys Gln Lys Gln Lys Ser Thr Glu His Val Pro Pro Tyr Asp
210     215     220
Val Val Pro Ser Met Arg Pro Ile Ile Leu Val Gly Pro Ser Leu Lys
225     230     235     240
Gly Tyr Glu Val Thr Asp Met Met Gln Lys Ala Leu Phe Asp Phe Leu
245     250     255
Lys His Arg Phe Asp Gly Arg Ile Ser Ile Thr Arg Val Thr Ala Asp
260     265     270
Ile Ser Leu Ala Lys Arg Ser Val Leu Asn Asn Pro Ser Lys His Ile
275     280     285
Ile Ile Glu Arg Ser Asn Thr Arg Ser Ser Leu Ala Glu Val Gln Ser
290     295     300
Glu Ile Glu Arg Ile Phe Glu Leu Ala Arg Thr Leu Gln Leu Val Ala
305     310     315     320
Leu Asp Ala Asp Thr Ile Asn His Pro Ala Gln Leu Ser Lys Thr Ser
325     330     335
Leu Ala Pro Ile Ile Val Tyr Ile Lys Ile Thr Ser Pro Lys Val Leu
340     345     350
Gln Arg Leu Ile Lys Ser Arg Gly Lys Ser Gln Ser Lys His Leu Asn
355     360     365
Val Gln Ile Ala Ala Ser Glu Lys Leu Ala Gln Cys Pro Pro Glu Met
370     375     380
Phe Asp Ile Ile Leu Asp Glu Asn Gln Leu Glu Asp Ala Cys Glu His
385     390     395     400
Leu Ala Glu Tyr Leu Glu Ala Tyr Trp Lys Ala Thr His Pro Pro Ser
405     410     415
Ser Thr Pro Pro Asn Pro Leu Leu Asn Arg Thr Met Ala Thr Ala Ala
420     425     430
Leu Arg Arg Ser Pro Ala Pro Val Ser Asn Leu Gln Val Gln Val Leu
435     440     445
Thr Ser Leu Arg Arg Asn Leu Gly Phe Trp Gly Gly Leu Glu Ser Ser
450     455     460

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Gln Arg Gly Ser Val Val Pro Gln Glu Gln Glu His Ala Met  
 465 470 475

<210> 29

<211> 196

<212> PRT

<213> Homo sapiens

<400> 29

Met Ser Met Leu Arg Leu Gln Lys Arg Leu Ala Ser Ser Val Leu Arg  
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 Cys Gly Lys Lys Lys Val Trp Leu Asp Pro Asn Glu Thr Asn Glu Ile  
 20 25 30  
 Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile Lys Asp Gly  
 35 40 45  
 Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala Arg Cys Arg  
 50 55 60  
 Lys Asn Thr Leu Ala Arg Arg Lys Gly Arg His Met Gly Ile Gly Lys  
 65 70 75 80  
 Arg Lys Gly Thr Ala Asn Ala Arg Met Pro Glu Lys Val Thr Trp Met  
 85 90 95  
 Arg Arg Met Arg Ile Leu Arg Arg Leu Leu Arg Arg Tyr Arg Glu Ser  
 100 105 110  
 Lys Lys Ile Asp Arg His Met Tyr His Ser Leu Tyr Leu Lys Val Lys  
 115 120 125  
 Gly Asn Val Phe Lys Asn Lys Arg Ile Leu Met Glu His Ile His Lys  
 130 135 140  
 Leu Lys Ala Asp Lys Ala Arg Lys Lys Leu Leu Ala Asp Gln Ala Glu  
 145 150 155 160  
 Ala Arg Arg Ser Lys Thr Lys Glu Ala Arg Lys Arg Arg Glu Glu Arg  
 165 170 175  
 Leu Gln Ala Lys Lys Glu Glu Ile Ile Lys Thr Leu Ser Lys Glu Glu  
 180 185 190  
 Glu Thr Lys Lys  
 195

<210> 30

<211> 1566

<212> PRT

<213> Homo sapiens

<400> 30

Met Ser Ser Leu Leu Glu Arg Leu His Ala Lys Phe Asn Gln Asn Arg  
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 20 25 30  
 Val Val Met Ser Ser Gly Gly His Gln His Leu Val Ser Cys Leu Glu  
 35 40 45  
 Thr Leu Gln Lys Ala Leu Lys Val Thr Ser Leu Pro Ala Met Thr Asp  
 50 55 60  
 Arg Leu Glu Ser Ile Ala Gly Gln Asn Gly Leu Gly Ser His Leu Ser  
 65 70 75 80  
 Ala Ser Gly Thr Glu Cys Tyr Ile Thr Ser Asp Met Phe Tyr Val Glu  
 85 90 95  
 Val Gln Leu Asp Pro Ala Gly Gln Leu Cys Asp Val Lys Val Ala His  
 100 105 110  
 His Gly Glu Asn Pro Val Ser Cys Pro Glu Leu Val Gln Gln Leu Arg  
 115 120 125

Glu	Lys	Asn	Ser	Asp	Glu	Phe	Ser	Lys	His	Leu	Lys	Gly	Leu	Val	Asn
130	130					135					140				
Leu	Tyr	Asn	Leu	Pro	Gly	Asp	Asn	Lys	Leu	Lys	Thr	Lys	Met	Tyr	Leu
145					150					155					160
Ala	Leu	Gln	Ser	Leu	Glu	Gln	Asp	Leu	Ser	Lys	Met	Ala	Ile	Met	Tyr
				165					170					175	
Trp	Lys	Ala	Thr	Asn	Ala	Gly	Pro	Leu	Asp	Lys	Ile	Leu	His	Gly	Ser
			180					185					190		
Val	Gly	Tyr	Leu	Thr	Pro	Arg	Ser	Gly	Gly	His	Leu	Met	Asn	Leu	Lys
	195						200					205			
Tyr	Tyr	Val	Ser	Pro	Ser	Asp	Leu	Leu	Asp	Asp	Lys	Thr	Ala	Ser	Pro
	210					215					220				
Ile	Ile	Leu	His	Glu	Asn	Asn	Val	Ser	Arg	Ser	Leu	Gly	Met	Asn	Ala
225					230					235					240
Ser	Val	Thr	Ile	Glu	Gly	Thr	Ser	Ala	Val	Tyr	Lys	Leu	Pro	Ile	Ala
				245					250					255	
Pro	Leu	Ile	Met	Gly	Ser	His	Pro	Val	Asp	Asn	Lys	Trp	Thr	Pro	Ser
			260					265					270		
Phe	Ser	Ser	Ile	Thr	Ser	Ala	Asn	Ser	Val	Asp	Leu	Pro	Ala	Cys	Phe
	275						280					285			
Phe	Leu	Lys	Phe	Pro	Gln	Pro	Ile	Pro	Val	Ser	Arg	Ala	Phe	Val	Gln
	290					295					300				
Lys	Leu	Gln	Asn	Cys	Thr	Gly	Ile	Pro	Leu	Phe	Glu	Thr	Gln	Pro	Thr
305					310					315					320
Tyr	Ala	Pro	Leu	Tyr	Glu	Leu	Ile	Thr	Gln	Phe	Glu	Leu	Ser	Lys	Asp
				325					330					335	
Pro	Asp	Pro	Ile	Pro	Leu	Asn	His	Asn	Met	Arg	Phe	Tyr	Ala	Ala	Leu
			340					345					350		
Pro	Gly	Gln	Gln	His	Cys	Tyr	Phe	Leu	Asn	Lys	Asp	Ala	Pro	Leu	Pro
	355						360					365			
Asp	Gly	Arg	Ser	Leu	Gln	Gly	Thr	Leu	Val	Ser	Lys	Ile	Thr	Phe	Gln
	370					375					380				
His	Pro	Gly	Arg	Val	Pro	Leu	Ile	Leu	Asn	Leu	Ile	Arg	His	Gln	Val
385					390					395					400
Ala	Tyr	Asn	Thr	Leu	Ile	Gly	Ser	Cys	Val	Lys	Arg	Thr	Ile	Leu	Lys
				405					410					415	
Glu	Asp	Ser	Pro	Gly	Leu	Leu	Gln	Phe	Glu	Val	Cys	Pro	Leu	Ser	Glu
			420					425					430		
Ser	Arg	Phe	Ser	Val	Ser	Phe	Gln	His	Pro	Val	Asn	Asp	Ser	Leu	Val
	435						440					445			
Cys	Val	Val	Met	Asp	Val	Gln	Gly	Leu	Thr	His	Val	Ser	Cys	Lys	Leu
	450					455					460				
Tyr	Lys	Gly	Leu	Ser	Asp	Ala	Leu	Ile	Cys	Thr	Asp	Asp	Phe	Ile	Ala
465					470					475					480
Lys	Val	Val	Gln	Arg	Cys	Met	Ser	Ile	Pro	Val	Thr	Met	Arg	Ala	Ile
				485					490					495	
Arg	Arg	Lys	Ala	Glu	Thr	Ile	Gln	Ala	Asp	Thr	Pro	Ala	Leu	Ser	Leu
			500					505					510		
Ile	Ala	Glu	Thr	Val	Glu	Asp	Met	Val	Lys	Lys	Asn	Leu	Pro	Pro	Ala
	515						520					525			
Ser	Ser	Pro	Gly	Tyr	Gly	Met	Thr	Thr	Gly	Asn	Asn	Pro	Met	Ser	Gly
	530					535					540				
Thr	Thr	Thr	Ser	Thr	Asn	Thr	Phe	Pro	Gly	Gly	Pro	Ile	Ala	Thr	Leu
545					550					555					560
Phe	Asn	Met	Ser	Met	Ser	Ile	Lys	Asp	Arg	His	Glu	Ser	Val	Gly	His
				565					570					575	
Gly	Glu	Asp	Phe	Ser	Lys	Val	Ser	Gln	Asn	Pro	Ile	Leu	Thr	Ser	Leu
			580					585					590		
Leu	Gln	Ile	Thr	Gly	Asn	Gly	Gly	Ser	Thr	Ile	Gly	Ser	Ser	Pro	Thr
	595					600						605			
Pro	Pro	His	His	Thr	Pro	Pro	Pro	Val	Ser	Ser	Met	Ala	Gly	Asn	Thr
	610					615					620				
Lys	Asn	His	Pro	Met	Leu	Met	Asn	Leu	Leu	Lys	Asp	Asn	Pro	Ala	Gln
625					630					635					640
Asp	Phe	Ser	Thr	Leu	Tyr	Gly	Ser	Ser	Pro	Leu	Glu	Arg	Gln	Asn	Ser
				645					650					655	

Ser Ser Gly Ser Pro Arg Met Glu Ile Cys Ser Gly Ser Asn Lys Thr  
 660 665 670  
 Lys Lys Lys Lys Ser Ser Arg Leu Pro Pro Glu Lys Pro Lys His Gln  
 675 680 685  
 Thr Glu Asp Asp Phe Gln Arg Glu Leu Phe Ser Met Asp Val Asp Ser  
 690 695 700  
 Gln Asn Pro Ile Phe Asp Val Asn Met Thr Ala Asp Thr Leu Asp Thr  
 705 710 715 720  
 Pro His Ile Thr Pro Ala Pro Ser Gln Cys Ser Thr Pro Pro Thr Thr  
 725 730 735  
 Tyr Pro Gln Pro Val Pro His Pro Gln Pro Ser Ile Gln Arg Met Val  
 740 745 750  
 Arg Leu Ser Ser Ser Asp Ser Ile Gly Pro Asp Val Thr Asp Ile Leu  
 755 760 765  
 Ser Asp Ile Ala Glu Glu Ala Ser Lys Leu Pro Ser Thr Ser Asp Asp  
 770 775 780  
 Cys Pro Ala Ile Gly Thr Pro Leu Arg Asp Ser Ser Ser Ser Gly His  
 785 790 795 800  
 Ser Gln Ser Thr Leu Phe Asp Ser Asp Val Phe Gln Thr Asn Asn Asn  
 805 810 815  
 Glu Asn Pro Tyr Thr Asp Pro Ala Asp Leu Ile Ala Asp Ala Ala Gly  
 820 825 830  
 Ser Pro Ser Ser Asp Ser Pro Thr Asn His Phe Phe His Asp Gly Val  
 835 840 845  
 Asp Phe Asn Pro Asp Leu Leu Asn Ser Gln Ser Gln Ser Gly Phe Gly  
 850 855 860  
 Glu Glu Tyr Phe Asp Glu Ser Ser Gln Ser Gly Asp Asn Asp Asp Phe  
 865 870 875 880  
 Lys Gly Phe Ala Ser Gln Ala Leu Asn Thr Leu Gly Val Pro Met Leu  
 885 890 895  
 Gly Gly Asp Asn Gly Glu Thr Lys Phe Lys Gly Asn Asn Gln Ala Asp  
 900 905 910  
 Thr Val Asp Phe Ser Ile Ile Ser Val Ala Gly Lys Ala Leu Ala Pro  
 915 920 925  
 Ala Asp Leu Met Glu His His Ser Gly Ser Gln Gly Pro Leu Leu Thr  
 930 935 940  
 Thr Gly Asp Leu Gly Lys Glu Lys Thr Gln Lys Arg Val Lys Glu Gly  
 945 950 955 960  
 Asn Gly Thr Ser Asn Ser Thr Leu Ser Gly Pro Gly Leu Asp Ser Lys  
 965 970 975  
 Pro Gly Lys Arg Ser Arg Thr Pro Ser Asn Asp Gly Lys Ser Lys Asp  
 980 985 990  
 Lys Pro Pro Lys Arg Lys Lys Ala Asp Thr Glu Gly Lys Ser Pro Ser  
 995 1000 1005  
 His Ser Ser Ser Asn Arg Pro Phe Thr Pro Pro Thr Ser Thr Gly  
 1010 1015 1020  
 Gly Ser Lys Ser Pro Gly Ser Ala Gly Arg Ser Gln Thr Pro Pro  
 1025 1030 1035  
 Gly Val Ala Thr Pro Pro Ile Pro Lys Ile Thr Ile Gln Ile Pro  
 1040 1045 1050  
 Lys Gly Thr Val Met Val Gly Lys Pro Ser Ser His Ser Gln Tyr  
 1055 1060 1065  
 Thr Ser Ser Gly Ser Val Ser Ser Ser Gly Ser Lys Ser His His  
 1070 1075 1080  
 Ser His Ser Ser Ser Ser Ser Ser Ser Ala Ser Thr Ser Gly Lys  
 1085 1090 1095  
 Met Lys Ser Ser Lys Ser Glu Gly Ser Ser Ser Ser Lys Leu Ser  
 1100 1105 1110  
 Ser Ser Met Tyr Ser Ser Gln Gly Ser Ser Gly Ser Ser Gln Ser  
 1115 1120 1125  
 Lys Asn Ser Ser Gln Ser Gly Gly Lys Pro Gly Ser Ser Pro Ile  
 1130 1135 1140  
 Thr Lys His Gly Leu Ser Ser Gly Ser Ser Ser Thr Lys Met Lys  
 1145 1150 1155  
 Pro Gln Gly Lys Pro Ser Ser Leu Met Asn Pro Ser Leu Ser Lys  
 1160 1165 1170

Pro	Asn	Ile	Ser	Pro	Ser	His	Ser	Arg	Pro	Pro	Gly	Gly	Ser	Asp
	1175					1180					1185			
Lys	Leu	Ala	Ser	Pro	Met	Lys	Pro	Val	Pro	Gly	Thr	Pro	Pro	Ser
	1190					1195					1200			
Ser	Lys	Ala	Lys	Ser	Pro	Ile	Ser	Ser	Gly	Ser	Gly	Gly	Ser	His
	1205					1210					1215			
Met	Ser	Gly	Thr	Ser	Ser	Ser	Ser	Gly	Met	Lys	Ser	Ser	Ser	Gly
	1220					1225					1230			
Leu	Gly	Ser	Ser	Gly	Ser	Leu	Ser	Gln	Lys	Thr	Pro	Pro	Ser	Ser
	1235					1240					1245			
Asn	Ser	Cys	Thr	Ala	Ser	Ser	Ser	Ser	Phe	Ser	Ser	Ser	Gly	Ser
	1250					1255					1260			
Ser	Met	Ser	Ser	Ser	Gln	Asn	Gln	His	Gly	Ser	Ser	Lys	Gly	Lys
	1265					1270					1275			
Ser	Pro	Ser	Arg	Asn	Lys	Lys	Pro	Ser	Leu	Thr	Ala	Val	Ile	Asp
	1280					1285					1290			
Lys	Leu	Lys	His	Gly	Val	Val	Thr	Ser	Gly	Pro	Gly	Gly	Glu	Asp
	1295					1300					1305			
Pro	Leu	Asp	Gly	Gln	Met	Gly	Val	Ser	Thr	Asn	Ser	Ser	Ser	His
	1310					1315					1320			
Pro	Met	Ser	Ser	Lys	His	Asn	Met	Ser	Gly	Gly	Glu	Phe	Gln	Gly
	1325					1330					1335			
Lys	Arg	Glu	Lys	Ser	Asp	Lys	Asp	Lys	Ser	Lys	Val	Ser	Thr	Ser
	1340					1345					1350			
Gly	Ser	Ser	Val	Asp	Ser	Ser	Lys	Lys	Thr	Ser	Glu	Ser	Lys	Asn
	1355					1360					1365			
Val	Gly	Ser	Thr	Gly	Val	Ala	Lys	Ile	Ile	Ile	Ser	Lys	His	Asp
	1370					1375					1380			
Gly	Gly	Ser	Pro	Ser	Ile	Lys	Ala	Lys	Val	Thr	Leu	Gln	Lys	Pro
	1385					1390					1395			
Gly	Glu	Ser	Ser	Gly	Glu	Gly	Leu	Arg	Pro	Gln	Met	Ala	Ser	Ser
	1400					1405					1410			
Lys	Asn	Tyr	Gly	Ser	Pro	Leu	Ile	Ser	Gly	Ser	Thr	Pro	Lys	His
	1415					1420					1425			
Glu	Arg	Gly	Ser	Pro	Ser	His	Ser	Lys	Ser	Pro	Ala	Tyr	Thr	Pro
	1430					1435					1440			
Gln	Asn	Leu	Asp	Ser	Glu	Ser	Glu	Ser	Gly	Ser	Ser	Ile	Ala	Glu
	1445					1450					1455			
Lys	Ser	Tyr	Gln	Asn	Ser	Pro	Ser	Ser	Asp	Asp	Gly	Ile	Arg	Pro
	1460					1465					1470			
Leu	Pro	Glu	Tyr	Ser	Thr	Glu	Lys	His	Lys	Lys	His	Lys	Lys	Glu
	1475					1480					1485			
Lys	Lys	Lys	Val	Lys	Asp	Lys	Asp	Arg	Asp	Arg	Asp	Arg	Asp	Lys
	1490					1495					1500			
Asp	Arg	Asp	Lys	Lys	Lys	Ser	His	Ser	Ile					

```

<400> 31
Met Pro Asn Ser Glu Arg His Gly Gly Lys Lys Asp Gly Ser Gly Gly
1      5      10      15
Ala Ser Gly Thr Leu Gln Pro Ser Ser Gly Gly Gly Ser Ser Asn Ser
20      25      30
Arg Glu Arg His Arg Leu Val Ser Lys His Lys Arg His Lys Ser Lys
35      40      45
His Ser Lys Asp Met Gly Leu Val Thr Pro Glu Ala Ala Ser Leu Gly
50      55      60
Thr Val Ile Lys Pro Leu Val Glu Tyr Asp Asp Ile Ser Ser Asp Ser
65      70      75
Asp Thr Phe Ser Asp Asp Met Ala Phe Lys Leu Asp Arg Arg Glu Asn
85      90      95
Asp Glu Arg Arg Gly Ser Asp Arg Ser Asp Arg Leu His Lys His Arg
100     105     110
His His Gln His Arg Arg Ser Arg Asp Leu Leu Lys Ala Lys Gln Thr
115     120     125
Glu Lys Glu Lys Ser Gln Glu Val Ser Ser Lys Ser Gly Ser Met Lys
130     135     140
Asp Arg Ile Ser Gly Ser Ser Lys Arg Ser Asn Glu Glu Thr Asp Asp
145     150     155
Tyr Gly Lys Ala Gln Val Ala Lys Ser Ser Ser Lys Glu Ser Arg Ser
165     170     175
Ser Lys Leu His Lys Glu Lys Thr Arg Lys Glu Arg Glu Leu Lys Ser
180     185     190
Gly His Lys Asp Arg Ser Lys Ser His Arg Lys Arg Glu Thr Pro Lys
195     200     205
Ser Tyr Lys Thr Val Asp Ser Pro Lys Arg Arg Ser Arg Ser Pro His
210     215     220
Arg Lys Trp Ser Asp Ser Ser Lys Gln Asp Asp Ser Pro Ser Gly Ala
225     230     235
Ser Tyr Gly Gln Asp Tyr Asp Leu Ser Pro Ser Arg Ser His Thr Ser
245     250     255
Ser Asn Tyr Asp Ser Tyr Lys Lys Ser Pro Gly Ser Thr Ser Arg Arg
260     265     270
Gln Ser Val Ser Pro Pro Tyr Lys Glu Pro Ser Ala Tyr Gln Ser Ser
275     280     285
Thr Arg Ser Pro Ser Pro Tyr Ser Arg Arg Gln Arg Ser Val Ser Pro
290     295     300
Tyr Ser Arg Arg Arg Ser Ser Tyr Glu Arg Ser Gly Ser Tyr Ser
305     310     315
Gly Arg Ser Pro Ser Pro Tyr Gly Arg Arg Arg Ser Ser Ser Pro Phe
325     330     335
Leu Ser Lys Arg Ser Leu Ser Arg Ser Pro Leu Pro Ser Arg Lys Ser
340     345     350
Met Lys Ser Arg Ser Arg Ser Pro Ala Tyr Ser Arg His Ser Ser Ser
355     360     365
His Ser Lys Lys Lys Arg Ser Ser Ser Arg Ser Arg His Ser Ser Ile
370     375     380
Ser Pro Val Arg Leu Pro Leu Asn Ser Ser Leu Gly Ala Glu Leu Ser
385     390     395
Arg Lys Lys Lys Glu Arg Ala Ala Ala Ala Ala Ala Lys Met Asp
405     410     415
Gly Lys Glu Ser Lys Gly Ser Pro Val Phe Leu Pro Arg Lys Glu Asn
420     425     430
Ser Ser Val Glu Ala Lys Asp Ser Gly Leu Glu Ser Lys Lys Leu Pro
435     440     445
Arg Ser Val Lys Leu Glu Lys Ser Ala Pro Asp Thr Glu Leu Val Asn
450     455     460
Val Thr His Leu Asn Thr Glu Val Lys Asn Ser Ser Asp Thr Gly Lys
465     470     475
Val Lys Leu Asp Glu Asn Ser Glu Lys His Leu Val Lys Asp Leu Lys
485     490     495
Ala Gln Gly Thr Arg Asp Ser Lys Pro Ile Ala Leu Lys Glu Glu Ile
500     505     510

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Val	Thr	Pro	Lys	Glu	Thr	Glu	Thr	Ser	Glu	Lys	Glu	Thr	Pro	Pro	Pro			
		515					520					525						
Leu	Pro	Thr	Ile	Ala	Ser	Pro	Pro	Pro	Pro	Leu	Pro	Thr	Thr	Thr	Pro			
	530					535					540							
Pro	Pro	Gln	Thr	Pro	Pro	Leu	Pro	Pro	Leu	Pro	Pro	Ile	Pro	Ala	Leu			
545					550					555					560			
Pro	Gln	Gln	Pro	Pro	Leu	Pro	Pro	Ser	Gln	Pro	Ala	Phe	Ser	Gln	Val			
				565					570						575			
Pro	Ala	Ser	Ser	Thr	Ser	Thr	Leu	Pro	Pro	Ser	Thr	His	Ser	Lys	Thr			
		580						585					590					
Ser	Ala	Val	Ser	Ser	Gln	Ala	Asn	Ser	Gln	Pro	Pro	Val	Gln	Val	Ser			
		595					600					605						
Val	Lys	Thr	Gln	Val	Ser	Val	Thr	Ala	Ala	Ile	Pro	His	Leu	Lys	Thr			
	610					615					620							
Ser	Thr	Leu	Pro	Pro	Leu	Pro	Leu	Pro	Pro	Leu	Leu	Pro	Gly	Gly	Asp			
625					630					635					640			
Asp	Met	Asp	Ser	Pro	Lys	Glu	Thr	Leu	Pro	Ser	Lys	Pro	Val	Lys	Lys			
				645					650					655				
Glu	Lys	Glu	Gln	Arg	Thr	Arg	His	Leu	Leu	Thr	Asp	Leu	Pro	Leu	Pro			
			660					665					670					
Pro	Glu	Leu	Pro	Gly	Gly	Asp	Leu	Ser	Pro	Pro	Asp	Ser	Pro	Glu	Pro			
		675					680					685						
Lys	Ala	Ile	Thr	Pro	Pro	Gln	Gln	Pro	Tyr	Lys	Lys	Arg	Pro	Lys	Ile			
	690					695					700							
Cys	Cys	Pro	Arg	Tyr	Gly	Glu	Arg	Arg	Gln	Thr	Glu	Ser	Asp	Trp	Gly			
705					710					715					720			
Lys	Arg	Cys	Val	Asp	Lys	Phe	Asp	Ile	Ile	Gly	Ile	Ile	Gly	Glu	Gly			
				725					730					735				
Thr	Tyr	Gly	Gln	Val	Tyr	Lys	Ala	Arg	Asp	Lys	Asp	Thr	Gly	Glu	Leu			
			740					745					750					
Val	Ala	Leu	Lys	Lys	Val	Arg	Leu	Asp	Asn	Glu	Lys	Glu	Gly	Phe	Pro			
		755					760					765						
Ile	Thr	Ala	Ile	Arg	Glu	Ile	Lys	Ile	Leu	Arg	Gln	Leu	Ile	His	Arg			
	770					775					780							
Ser	Val	Val	Asn	Met	Lys	Glu	Ile	Val	Thr	Asp	Lys	Gln	Asp	Ala	Leu			
785					790					795					800			
Asp	Phe	Lys	Lys	Asp	Lys	Gly	Ala	Phe	Tyr	Leu	Val	Phe	Glu	Tyr	Met			
				805					810					815				
Asp	His	Asp	Leu	Met	Gly	Leu	Leu	Glu	Ser	Gly	Leu	Val	His	Phe	Ser			
			820					825					830					
Glu	Asp	His	Ile	Lys	Ser	Phe	Met	Lys	Gln	Leu	Met	Glu	Gly	Leu	Glu			
		835					840					845						
Tyr	Cys	His	Lys	Lys	Asn	Phe	Leu	His	Arg	Asp	Ile	Lys	Cys	Ser	Asn			
	850				855						860							
Ile	Leu	Leu	Asn	Asn	Ser	Gly	Gln	Ile	Lys	Leu	Ala	Asp	Phe	Gly	Leu			
865					870					875					880			
Ala	Arg	Leu	Tyr	Asn	Ser	Glu	Glu	Ser	Arg	Pro	Tyr	Thr	Asn	Lys	Val			
				885					890						895			
Ile	Thr	Leu	Trp	Tyr	Arg	Pro	Pro	Glu	Leu	Leu	Leu	Gly	Glu	Glu	Arg			
			900					905					910					
Tyr	Thr	Pro	Ala	Ile	Asp	Val	Trp	Ser	Cys	Gly	Cys	Ile	Leu	Gly	Glu			
		915					920					925						
Leu	Phe	Thr	Lys	Lys	Pro	Ile	Phe	Gln	Ala	Asn	Leu	Glu	Leu	Ala	Gln			
	930					935					940							
Leu	Glu	Leu	Ile	Ser	Arg	Leu	Cys	Gly	Ser	Pro	Cys	Pro	Ala	Val	Trp			
945					950					955					960			
Pro	Asp	Val	Ile	Lys	Leu	Pro	Tyr	Phe	Asn	Thr	Met	Lys	Pro	Lys	Lys			
				965					970					975				
Gln	Tyr	Arg	Arg	Arg	Leu	Arg	Glu	Glu	Phe	Ser	Phe	Ile	Pro	Ser	Ala			
				980				985					990					
Ala	Leu	Asp	Leu	Leu	Asp	His	Met	Leu	Thr	Leu	Asp	Pro	Ser	Lys	Arg			
		995				1000						1005						
Cys	Thr	Ala	Glu	Gln	Thr	Leu	Gln	Ser	Asp	Phe	Leu	Lys	Asp	Val				
	1010					1015					1020							
Glu	Leu	Ser	Lys	Met	Ala	Pro	Pro	Asp	Leu	Pro	His	Trp	Gln	Asp				
	1025					1030												

Cys	His	Glu	Leu	Trp	Ser	Lys	Lys	Arg	Arg	Arg	Gln	Arg	Gln	Ser
1040						1045					1050			
Gly	Val	Val	Val	Glu	Glu	Pro	Pro	Pro	Ser	Lys	Thr	Ser	Arg	Lys
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Glu	Thr	Thr	Ser	Gly	Thr	Ser	Thr	Glu	Pro	Val	Lys	Asn	Ser	Ser
1070						1075					1080			
Pro	Ala	Pro	Pro	Gln	Pro	Ala	Pro	Gly	Lys	Val	Glu	Ser	Gly	Ala
1085						1090					1095			
Gly	Asp	Ala	Ile	Gly	Leu	Ala	Asp	Ile	Thr	Gln	Gln	Leu	Asn	Gln
1100						1105					1110			
Ser	Glu	Leu	Ala	Val	Leu	Leu	Asn	Leu	Leu	Gln	Ser	Gln	Thr	Asp
1115						1120					1125			
Leu	Ser	Ile	Pro	Gln	Met	Ala	Gln	Leu	Leu	Asn	Ile	His	Ser	Asn
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Pro	Glu	Met	Gln	Gln	Gln	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Ser
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Ala	Leu	Thr	Glu	Ala	Thr	Ser	Gln	Gln	Gln	Asp	Ser	Glu	Thr	Met
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Ala	Pro	Glu	Glu	Ser	Leu	Lys	Glu	Ala	Pro	Ser	Ala	Pro	Val	Ile
1175						1180					1185			
Leu	Pro	Ser	Ala	Glu	Gln	Met	Thr	Leu	Glu	Ala	Ser	Ser	Thr	Pro
1190						1195					1200			
Ala	Asp	Met	Gln	Asn	Ile	Leu	Ala	Val	Leu	Leu	Ser	Gln	Leu	Met
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Lys	Thr	Gln	Glu	Pro	Ala	Gly	Ser	Leu	Glu	Glu	Asn	Asn	Ser	Asp
1220						1225					1230			
Lys	Asn	Ser	Gly	Pro	Gln	Gly	Pro	Arg	Arg	Thr	Pro	Thr	Met	Pro
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Gln	Glu	Glu	Ala	Ala	Ala	Cys	Pro	Pro	His	Ile	Leu	Pro	Pro	Glu
1250						1255					1260			
Lys	Arg	Pro	Pro	Glu	Pro	Pro	Gly	Pro	Pro	Pro	Pro	Pro	Pro	Pro
1265						1270					1275			
Pro	Pro	Leu	Val	Glu	Gly	Asp	Leu	Ser	Ser	Ala	Pro	Gln	Glu	Leu
1280						1285					1290			
Asn	Pro	Ala	Val	Thr	Ala	Ala	Leu	Leu	Gln	Leu	Leu	Ser	Gln	Pro
1295						1300					1305			
Glu	Ala	Glu	Pro	Pro	Gly	His	Leu	Pro	His	Glu	His	Gln	Ala	Leu
1310						1315					1320			
Arg	Pro	Met	Glu	Tyr	Ser	Thr	Arg	Pro	Arg	Pro	Asn	Arg	Thr	Tyr
1325						1330					1335			
Gly	Asn	Thr	Asp	Gly	Pro	Glu	Thr	Gly	Phe	Ser	Ala	Ile	Asp	Thr
1340						1345					1350			
Asp	Glu	Arg	Asn	Ser	Gly	Pro	Ala	Leu	Thr	Glu	Ser	Leu	Val	Gln
1355						1360					1365			
Thr	Leu	Val	Lys	Asn	Arg	Thr	Phe	Ser	Gly	Ser	Leu	Ser	His	Leu
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Gly	Glu	Ser	Ser	Ser	Tyr	Gln	Gly	Thr	Gly	Ser	Val	Gln	Phe	Pro
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Gly	Asp	Gln	Asp	Leu	Arg	Phe	Ala	Arg	Val	Pro	Leu	Ala	Leu	His
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Pro	Val	Val	Gly	Gln	Pro	Phe	Leu	Lys	Ala	Glu	Gly	Ser	Ser	Asn
1415						1420					1425			
Ser	Val	Val	His	Ala	Glu	Thr	Lys	Leu	Gln	Asn	Tyr	Gly	Glu	Leu
1430						1435					1440			
Gly	Pro	Gly	Thr	Thr	Gly	Ala	Ser	Ser	Ser	Gly	Ala	Gly	Leu	His
1445						1450					1455			
Trp	Gly	Gly	Pro	Thr	Gln	Ser	Ser	Ala	Tyr	Gly	Lys	Leu	Tyr	Arg
1460						1465					1470			
Gly	Pro	Thr	Arg	Val	Pro	Pro	Arg	Gly	Gly	Arg	Gly	Arg	Gly	Val
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Pro	Tyr													
1490														

&lt;210&gt; 32

&lt;211&gt; 381

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

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Met Leu Thr Arg Leu Phe Ser Glu Pro Gly Leu Leu Ser Asp Val Pro
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Lys Phe Ala Ser Trp Gly Asp Gly Glu Asp Asp Glu Pro Arg Ser Asp
      20      25      30
Lys Gly Asp Ala Pro Pro Pro Pro Pro Ala Pro Gly Pro Gly Ala
      35      40      45
Pro Gly Pro Ala Arg Ala Ala Lys Pro Val Pro Leu Arg Gly Glu Glu
      50      55      60
Gly Thr Glu Ala Thr Leu Ala Glu Val Lys Glu Glu Gly Glu Leu Gly
65      70      75      80
Gly Glu Glu Glu Glu Glu Glu Glu Glu Glu Gly Leu Asp Glu Ala
      85      90      95
Glu Gly Glu Arg Pro Lys Lys Arg Gly Pro Lys Lys Arg Lys Met Thr
      100      105      110
Lys Ala Arg Leu Glu Arg Ser Lys Leu Arg Arg Gln Lys Ala Asn Ala
      115      120      125
Arg Glu Arg Asn Arg Met His Asp Leu Asn Ala Ala Leu Asp Asn Leu
      130      135      140
Arg Lys Val Val Pro Cys Tyr Ser Lys Thr Gln Lys Leu Ser Lys Ile
145      150      155      160
Glu Thr Leu Arg Leu Ala Lys Asn Tyr Ile Trp Ala Leu Ser Glu Ile
      165      170      175
Leu Arg Ser Gly Lys Arg Pro Asp Leu Val Ser Tyr Val Gln Thr Leu
      180      185      190
Cys Lys Gly Leu Ser Gln Pro Thr Thr Asn Leu Val Ala Gly Cys Leu
      195      200      205
Gln Leu Asn Ser Arg Asn Phe Leu Thr Glu Gln Gly Ala Asp Gly Ala
      210      215      220
Gly Arg Phe His Gly Ser Gly Gly Pro Phe Ala Met His Pro Tyr Pro
225      230      235      240
Tyr Pro Cys Ser Arg Leu Ala Gly Ala Gln Cys Gln Ala Ala Gly Gly
      245      250      255
Leu Gly Gly Gly Ala Ala His Ala Leu Arg Thr His Gly Tyr Cys Ala
      260      265      270
Ala Tyr Glu Thr Leu Tyr Ala Ala Ala Gly Gly Gly Gly Ala Ser Pro
      275      280      285
Asp Tyr Asn Ser Ser Glu Tyr Glu Gly Pro Leu Ser Pro Pro Leu Cys
290      295      300
Leu Asn Gly Asn Phe Ser Leu Lys Gln Asp Ser Ser Pro Asp His Glu
305      310      315      320
Lys Ser Tyr His Tyr Ser Met His Tyr Ser Ala Leu Pro Gly Ser Arg
      325      330      335
His Gly His Gly Leu Val Phe Gly Ser Ser Ala Val Arg Gly Gly Val
      340      345      350
His Ser Glu Asn Leu Leu Ser Tyr Asp Met His Leu His His Asp Arg
      355      360      365
Gly Pro Met Tyr Glu Glu Leu Asn Ala Phe Phe His Asn
      370      375      380

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&lt;210&gt; 33

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



<400> 33  
 Met Ser Lys Leu Pro Arg Glu Leu Thr Arg Asp Leu Glu Arg Ser Leu  
 1 5 10 15  
 Pro Ala Val Ala Ser Leu Gly Ser Ser Leu Ser His Ser Gln Ser Leu  
 20 25 30  
 Ser Ser His Leu Leu Pro Pro Pro Glu Lys Arg Arg Ala Ile Ser Asp  
 35 40 45  
 Val Arg Arg Thr Phe Cys Leu Phe Val Thr Phe Asp Leu Leu Phe Ile  
 50 55 60  
 Ser Leu Leu Trp Ile Ile Glu Leu Asn Thr Asn Thr Gly Ile Arg Lys  
 65 70 75 80  
 Asn Leu Glu Gln Glu Ile Ile Gln Tyr Asn Phe Lys Thr Ser Phe Phe  
 85 90 95  
 Asp Ile Phe Val Leu Ala Phe Phe Arg Phe Ser Gly Leu Leu Gly  
 100 105 110  
 Tyr Ala Val Leu Gln Leu Arg His Trp Trp Val Ile Ala Val Thr Thr  
 115 120 125  
 Leu Val Ser Ser Ala Phe Leu Ile Val Lys Val Ile Leu Ser Glu Leu  
 130 135 140  
 Leu Ser Lys Gly Ala Phe Gly Tyr Leu Leu Pro Ile Val Ser Phe Val  
 145 150 155 160  
 Leu Ala Trp Leu Glu Thr Trp Phe Leu Asp Phe Lys Val Leu Pro Gln  
 165 170 175  
 Glu Ala Glu Glu Glu Arg Trp Tyr Leu Ala Ala Gln Val Ala Val Ala  
 180 185 190  
 Arg Gly Pro Leu Leu Phe Ser Gly Ala Leu Ser Glu Gly Gln Phe Tyr  
 195 200 205  
 Ser Pro Pro Glu Ser Phe Ala Gly Ser Asp Asn Glu Ser Asp Glu Glu  
 210 215 220  
 Val Ala Gly Lys Lys Ser Phe Ser Ala Gln Glu Arg Glu Tyr Ile Arg  
 225 230 235 240  
 Gln Gly Lys Glu Ala Thr Ala Val Val Asp Gln Ile Leu Ala Gln Glu  
 245 250 255  
 Glu Asn Trp Lys Phe Glu Lys Asn Asn Glu Tyr Gly Asp Thr Val Tyr  
 260 265 270  
 Thr Ile Glu Val Pro Phe His Gly Lys Thr Phe Ile Leu Lys Thr Phe  
 275 280 285  
 Leu Pro Cys Pro Ala Glu Leu Val Tyr Gln Glu Val Ile Leu Gln Pro  
 290 295 300  
 Glu Arg Met Val Leu Trp Asn Lys Thr Val Thr Ala Cys Gln Ile Leu  
 305 310 315 320  
 Gln Arg Val Glu Asp Asn Thr Leu Ile Ser Tyr Asp Val Ser Ala Gly  
 325 330 335  
 Ala Ala Gly Gly Val Val Ser Pro Arg Asp Phe Val Asn Val Arg Arg  
 340 345 350  
 Ile Glu Arg Arg Arg Asp Arg Tyr Leu Ser Ser Gly Ile Ala Thr Ser  
 355 360 365  
 His Ser Ala Lys Pro Pro Thr His Lys Tyr Val Arg Gly Glu Asn Gly  
 370 375 380  
 Pro Gly Gly Phe Ile Val Leu Lys Ser Ala Ser Asn Pro Arg Val Cys  
 385 390 395 400  
 Thr Phe Val Trp Ile Leu Asn Thr Asp Leu Lys Gly Arg Leu Pro Arg  
 405 410 415  
 Tyr Leu Ile His Gln Ser Leu Ala Ala Thr Met Phe Glu Phe Ala Phe  
 420 425 430  
 His Leu Arg Gln Arg Ile Ser Glu Leu Gly Ala Arg Ala  
 435 440 445

<210> 34

<211> 167

<212> PRT

<213> Homo sapiens

<400> 34  
 Met Ala Thr Ser Glu Leu Ser Cys Glu Val Ser Glu Glu Asn Cys Glu  
 1 5 10 15  
 Arg Arg Glu Ala Phe Trp Ala Glu Trp Lys Asp Leu Thr Leu Ser Thr  
 20 25 30  
 Arg Pro Glu Glu Gly Cys Ser Leu His Glu Glu Asp Thr Gln Arg His  
 35 40 45  
 Glu Thr Tyr His Gln Gln Gly Gln Cys Gln Val Leu Val Gln Arg Ser  
 50 55 60  
 Pro Trp Leu Met Met Arg Met Gly Ile Leu Gly Arg Gly Leu Gln Glu  
 65 70 75 80  
 Tyr Gln Leu Pro Tyr Gln Arg Val Leu Pro Leu Pro Ile Phe Thr Pro  
 85 90 95  
 Ala Lys Met Gly Ala Thr Lys Glu Glu Arg Glu Asp Thr Pro Ile Gln  
 100 105 110  
 Leu Gln Glu Leu Leu Ala Leu Glu Thr Ala Leu Gly Gly Gln Cys Val  
 115 120 125  
 Asp Arg Gln Glu Val Ala Glu Ile Thr Lys Gln Leu Pro Pro Val Val  
 130 135 140  
 Pro Val Ser Lys Pro Gly Ala Leu Arg Arg Ser Leu Ser Arg Ser Met  
 145 150 155 160  
 Ser Gln Glu Ala Gln Arg Gly  
 165

<210> 35

<211> 282

<212> PRT

<213> Homo sapiens

<400> 35  
 Met Ser Gly Ala Asp Arg Ser Pro Asn Ala Gly Ala Ala Pro Asp Ser  
 1 5 10 15  
 Ala Pro Gly Gln Ala Ala Val Ala Ser Ala Tyr Gln Arg Phe Glu Pro  
 20 25 30  
 Arg Ala Tyr Leu Arg Asn Asn Tyr Ala Pro Pro Arg Gly Asp Leu Cys  
 35 40 45  
 Asn Pro Asn Gly Val Gly Pro Trp Lys Leu Arg Cys Leu Ala Gln Thr  
 50 55 60  
 Phe Ala Thr Gly Glu Val Ser Gly Arg Thr Leu Ile Asp Ile Gly Ser  
 65 70 75 80  
 Gly Pro Thr Val Tyr Gln Leu Leu Ser Ala Cys Ser His Phe Glu Asp  
 85 90 95  
 Ile Thr Met Thr Asp Phe Leu Glu Val Asn Arg Gln Glu Leu Gly Arg  
 100 105 110  
 Trp Leu Gln Glu Glu Pro Gly Ala Phe Asn Trp Ser Met Tyr Ser Gln  
 115 120 125  
 His Ala Cys Leu Ile Glu Gly Lys Gly Glu Cys Trp Gln Asp Lys Glu  
 130 135 140  
 Arg Gln Leu Arg Ala Arg Val Lys Arg Val Leu Pro Ile Asp Val His  
 145 150 155 160  
 Gln Pro Gln Pro Leu Gly Ala Gly Ser Pro Ala Pro Leu Pro Ala Asp  
 165 170 175  
 Ala Leu Val Ser Ala Phe Cys Leu Glu Ala Val Ser Pro Asp Leu Ala  
 180 185 190  
 Ser Phe Gln Arg Ala Leu Asp His Ile Thr Thr Leu Leu Arg Pro Gly  
 195 200 205  
 Gly His Leu Leu Leu Ile Gly Ala Leu Glu Glu Ser Trp Tyr Leu Ala  
 210 215 220  
 Gly Glu Ala Arg Leu Thr Val Val Pro Val Ser Glu Glu Glu Val Arg  
 225 230 235 240

Glu Ala Leu Val Arg Ser Gly Tyr Lys Val Arg Asp Leu Arg Thr Tyr  
 245 250 255  
 Ile Met Pro Ala His Leu Gln Thr Gly Val Asp Asp Val Lys Gly Val  
 260 265 270  
 Phe Phe Ala Trp Ala Gln Lys Val Gly Leu  
 275 280  
 <210> 36

<211> 1255

<212> PRT

<213> Homo sapiens

<400> 36

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu  
 1 5 10 15  
 Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys  
 20 25 30  
 Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His  
 35 40 45  
 Leu Tyr Gln Gly Cys Gln Val Gln Gly Asn Leu Glu Leu Thr Tyr  
 50 55 60  
 Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val  
 65 70 75 80  
 Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu  
 85 90 95  
 Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr  
 100 105 110  
 Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro  
 115 120 125  
 Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser  
 130 135 140  
 Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln  
 145 150 155 160  
 Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn  
 165 170 175  
 Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys  
 180 185 190  
 His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser  
 195 200 205  
 Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys  
 210 215 220  
 Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys  
 225 230 235 240  
 Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu  
 245 250 255  
 His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val  
 260 265 270  
 Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg  
 275 280 285  
 Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu  
 290 295 300  
 Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln  
 305 310 315 320  
 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys  
 325 330 335  
 Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu  
 340 345 350  
 Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys  
 355 360 365  
 Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp  
 370 375 380

Pro	Ala	Ser	Asn	Thr	Ala	Pro	Leu	Gln	Pro	Glu	Gln	Leu	Gln	Val	Phe
385					390					395					400
Glu	Thr	Leu	Glu	Glu	Ile	Thr	Gly	Tyr	Leu	Tyr	Ile	Ser	Ala	Trp	Pro
			405						410					415	
Asp	Ser	Leu	Pro	Asp	Leu	Ser	Val	Phe	Gln	Asn	Leu	Gln	Val	Ile	Arg
			420					425					430		
Gly	Arg	Ile	Leu	His	Asn	Gly	Ala	Tyr	Ser	Leu	Thr	Leu	Gln	Gly	Leu
		435				440						445			
Gly	Ile	Ser	Trp	Leu	Gly	Leu	Arg	Ser	Leu	Arg	Glu	Leu	Gly	Ser	Gly
	450				455						460				
Leu	Ala	Leu	Ile	His	His	Asn	Thr	His	Leu	Cys	Phe	Val	His	Thr	Val
465					470					475					480
Pro	Trp	Asp	Gln	Leu	Phe	Arg	Asn	Pro	His	Gln	Ala	Leu	Leu	His	Thr
				485					490					495	
Ala	Asn	Arg	Pro	Glu	Asp	Glu	Cys	Val	Gly	Glu	Gly	Leu	Ala	Cys	His
			500					505					510		
Gln	Leu	Cys	Ala	Arg	Gly	His	Cys	Trp	Gly	Pro	Gly	Pro	Thr	Gln	Cys
	515					520						525			
Val	Asn	Cys	Ser	Gln	Phe	Leu	Arg	Gly	Gln	Glu	Cys	Val	Glu	Glu	Cys
	530					535					540				
Arg	Val	Leu	Gln	Gly	Leu	Pro	Arg	Glu	Tyr	Val	Asn	Ala	Arg	His	Cys
545					550					555					560
Leu	Pro	Cys	His	Pro	Glu	Cys	Gln	Pro	Gln	Asn	Gly	Ser	Val	Thr	Cys
				565					570					575	
Phe	Gly	Pro	Glu	Ala	Asp	Gln	Cys	Val	Ala	Cys	Ala	His	Tyr	Lys	Asp
			580					585					590		
Pro	Pro	Phe	Cys	Val	Ala	Arg	Cys	Pro	Ser	Gly	Val	Lys	Pro	Asp	Leu
		595					600					605			
Ser	Tyr	Met	Pro	Ile	Trp	Lys	Phe	Pro	Asp	Glu	Glu	Gly	Ala	Cys	Gln
	610					615					620				
Pro	Cys	Pro	Ile	Asn	Cys	Thr	His	Ser	Cys	Val	Asp	Leu	Asp	Asp	Lys
625					630					635					640
Gly	Cys	Pro	Ala	Glu	Gln	Arg	Ala	Ser	Pro	Leu	Thr	Ser	Ile	Val	Ser
			645						650					655	
Ala	Val	Val	Gly	Ile	Leu	Leu	Val	Val	Val	Leu	Gly	Val	Val	Phe	Gly
			660					665					670		
Ile	Leu	Ile	Lys	Arg	Arg	Gln	Gln	Lys	Ile	Arg	Lys	Tyr	Thr	Met	Arg
	675					680						685			
Arg	Leu	Leu	Gln	Glu	Thr	Glu	Leu	Val	Glu	Pro	Leu	Thr	Pro	Ser	Gly
	690					695					700				
Ala	Met	Pro	Asn	Gln	Ala	Gln	Met	Arg	Ile	Leu	Lys	Glu	Thr	Glu	Leu
705					710					715					720
Arg	Lys	Val	Lys	Val	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Thr	Val	Tyr	Lys
				725					730					735	
Gly	Ile	Trp	Ile	Pro	Asp	Gly	Glu	Asn	Val	Lys	Ile	Pro	Val	Ala	Ile
		740				745						750			
Lys	Val	Leu	Arg	Glu	Asn	Thr	Ser	Pro	Lys	Ala	Asn	Lys	Glu	Ile	Leu
	755					760						765			
Asp	Glu	Ala	Tyr	Val	Met	Ala	Gly	Val	Gly	Ser	Pro	Tyr	Val	Ser	Arg
	770					775					780				
Leu	Leu	Gly	Ile	Cys	Leu	Thr	Ser	Thr	Val	Gln	Leu	Val	Thr	Gln	Leu
785					790					795					800
Met	Pro	Tyr	Gly	Cys	Leu	Leu	Asp	His	Val	Arg	Glu	Asn	Arg	Gly	Arg
				805					810					815	
Leu	Gly	Ser	Gln	Asp	Leu	Leu	Asn	Trp	Cys	Met	Gln	Ile	Ala	Lys	Gly
			820					825					830		
Met	Ser	Tyr	Leu	Glu	Asp	Val	Arg	Leu	Val	His	Arg	Asp	Leu	Ala	Ala
	835					840						845			
Arg	Asn	Val	Leu	Val	Lys	Ser	Pro	Asn	His	Val	Lys	Ile	Thr	Asp	Phe
	850					855					860				
Gly	Leu	Ala	Arg	Leu	Leu	Asp	Ile	Asp	Glu	Thr	Glu	Tyr	His	Ala	Asp
865					870					875					880
Gly	Gly	Lys	Val	Pro	Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	Ile	Leu	Arg
				885					890					895	
Arg	Arg	Phe	Thr	His	Gln	Ser	Asp	Val	Trp	Ser	Tyr	Gly	Val	Thr	Val
			900					905					910		

Trp Glu Leu Met Thr Phe Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala  
           915                                  920                  925  
 Arg Glu Ile Pro Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro  
       930                                  935                  940  
 Pro Ile Cys Thr Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met  
 945                                  950                  955                  960  
 Ile Asp Ser Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe  
                                   965                                  970                  975  
 Ser Arg Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu  
                                   980                                  985                  990  
 Asp Leu Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu  
       995                                  1000                  1005  
 Leu Glu Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr  
       1010                                  1015                  1020  
 Leu Val Pro Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly  
       1025                                  1030                  1035  
 Ala Gly Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg  
       1040                                  1045                  1050  
 Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu  
       1055                                  1060                  1065  
 Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser  
       1070                                  1075                  1080  
 Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys Gly Leu  
       1085                                  1090                  1095  
 Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr Ser  
       1100                                  1105                  1110  
 Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val  
       1115                                  1120                  1125  
 Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro  
       1130                                  1135                  1140  
 Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro  
       1145                                  1150                  1155  
 Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu  
       1160                                  1165                  1170  
 Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly  
       1175                                  1180                  1185  
 Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala  
       1190                                  1195                  1200  
 Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp  
       1205                                  1210                  1215  
 Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro  
       1220                                  1225                  1230  
 Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr  
       1235                                  1240                  1245  
 Leu Gly Leu Asp Val Pro Val  
       1250                                  1255

&lt;210&gt; 37

&lt;211&gt; 532

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 37

Met Glu Leu Asp Leu Ser Pro Pro His Leu Ser Ser Ser Pro Glu Asp  
 1                  5                  10                  15  
 Leu Trp Pro Ala Pro Gly Thr Pro Pro Gly Thr Pro Arg Pro Pro Asp  
           20                  25                  30  
 Thr Pro Leu Pro Glu Glu Val Lys Arg Ser Gln Pro Leu Leu Ile Pro  
       35                  40                  45  
 Thr Thr Gly Arg Lys Leu Arg Glu Glu Glu Arg Arg Ala Thr Ser Leu  
       50                  55                  60

Pro Ser Ile Pro Asn Pro Phe Pro Glu Leu Cys Ser Pro Pro Ser Gln  
 65 70 75 80  
 Ser Pro Ile Leu Gly Gly Pro Ser Ser Ala Arg Gly Leu Leu Pro Arg  
 85 90 95  
 Asp Ala Ser Arg Pro His Val Val Lys Val Tyr Ser Glu Asp Gly Ala  
 100 105 110  
 Cys Arg Ser Val Glu Val Ala Ala Gly Ala Thr Ala Arg His Val Cys  
 115 120 125  
 Glu Met Leu Val Gln Arg Ala His Ala Leu Ser Asp Glu Thr Trp Gly  
 130 135 140  
 Leu Val Glu Cys His Pro His Leu Ala Leu Glu Arg Gly Leu Glu Asp  
 145 150 155 160  
 His Glu Ser Val Val Glu Val Gln Ala Ala Trp Pro Val Gly Gly Asp  
 165 170 175  
 Ser Arg Phe Val Phe Arg Lys Asn Phe Ala Lys Tyr Glu Leu Phe Lys  
 180 185 190  
 Ser Ser Pro His Ser Leu Phe Pro Glu Lys Met Val Ser Ser Cys Leu  
 195 200 205  
 Asp Ala His Thr Gly Ile Ser His Glu Asp Leu Ile Gln Asn Phe Leu  
 210 215 220  
 Asn Ala Gly Ser Phe Pro Glu Ile Gln Gly Phe Leu Gln Leu Arg Gly  
 225 230 235 240  
 Ser Gly Arg Lys Leu Trp Lys Arg Phe Phe Cys Phe Leu Arg Arg Ser  
 245 250 255  
 Gly Leu Tyr Tyr Ser Thr Lys Gly Thr Ser Lys Asp Pro Arg His Leu  
 260 265 270  
 Gln Tyr Val Ala Asp Val Asn Glu Ser Asn Val Tyr Val Val Thr Gln  
 275 280 285  
 Gly Arg Lys Leu Tyr Gly Met Pro Thr Asp Phe Gly Phe Cys Val Lys  
 290 295 300  
 Pro Asn Lys Leu Arg Asn Gly His Lys Gly Leu Arg Ile Phe Cys Ser  
 305 310 315 320  
 Glu Asp Glu Gln Ser Arg Thr Cys Trp Leu Ala Ala Phe Arg Leu Phe  
 325 330 335  
 Lys Tyr Gly Val Gln Leu Tyr Lys Asn Tyr Gln Gln Ala Gln Ser Arg  
 340 345 350  
 His Leu His Pro Ser Cys Leu Gly Ser Pro Pro Leu Arg Ser Ala Ser  
 355 360 365  
 Asp Asn Thr Leu Val Ala Met Asp Phe Ser Gly His Ala Gly Arg Val  
 370 375 380  
 Ile Glu Asn Pro Arg Glu Ala Leu Ser Val Ala Leu Glu Glu Ala Gln  
 385 390 395 400  
 Ala Trp Arg Lys Lys Thr Asn His Arg Leu Ser Leu Pro Met Pro Ala  
 405 410 415  
 Ser Gly Thr Ser Leu Ser Ala Ala Ile His Arg Thr Gln Leu Trp Phe  
 420 425 430  
 His Gly Arg Ile Ser Arg Glu Glu Ser Gln Arg Leu Ile Gly Gln Gln  
 435 440 445  
 Gly Leu Val Asp Gly Leu Phe Leu Val Arg Glu Ser Gln Arg Asn Pro  
 450 455 460  
 Gln Gly Phe Val Leu Ser Leu Cys His Leu Gln Lys Val Lys His Tyr  
 465 470 475 480  
 Leu Ile Leu Pro Ser Glu Glu Glu Gly Arg Leu Tyr Phe Ser Met Asp  
 485 490 495  
 Asp Gly Gln Thr Arg Phe Thr Asp Leu Leu Gln Leu Val Glu Phe His  
 500 505 510  
 Gln Leu Asn Arg Gly Ile Leu Pro Cys Leu Leu Arg His Cys Cys Thr  
 515 520 525  
 Arg Val Ala Leu  
 530  
 <210> 38  
 <211> 534  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 38

Met	Lys	Gln	Glu	Gly	Ser	Ala	Arg	Arg	Arg	Gly	Ala	Asp	Lys	Ala	Lys		
1				5					10					15			
Pro	Pro	Pro	Gly	Gly	Gly	Glu	Gln	Glu	Pro	Pro	Pro	Pro	Pro	Ala	Pro		
			20					25					30				
Gln	Asp	Val	Glu	Met	Lys	Glu	Glu	Ala	Ala	Thr	Gly	Gly	Gly	Ser	Thr		
		35				40					45						
Gly	Glu	Ala	Asp	Gly	Lys	Thr	Ala	Ala	Ala	Ala	Val	Glu	His	Ser	Gln		
	50					55					60						
Arg	Glu	Leu	Asp	Thr	Val	Thr	Leu	Glu	Asp	Ile	Lys	Glu	His	Val	Lys		
65				70					75						80		
Gln	Leu	Glu	Lys	Ala	Val	Ser	Gly	Lys	Glu	Pro	Arg	Phe	Val	Leu	Arg		
				85					90					95			
Ala	Leu	Arg	Met	Leu	Pro	Ser	Thr	Ser	Arg	Arg	Leu	Asn	His	Tyr	Val		
			100					105					110				
Leu	Tyr	Lys	Ala	Val	Gln	Gly	Phe	Phe	Thr	Ser	Asn	Asn	Ala	Thr	Arg		
		115				120						125					
Asp	Phe	Leu	Leu	Pro	Phe	Leu	Glu	Glu	Pro	Met	Asp	Thr	Glu	Ala	Asp		
	130				135						140						
Leu	Gln	Phe	Arg	Pro	Arg	Thr	Gly	Lys	Ala	Ala	Ser	Thr	Pro	Leu	Leu		
145					150				155						160		
Pro	Glu	Val	Glu	Ala	Tyr	Leu	Gln	Leu	Leu	Val	Val	Ile	Phe	Met	Met		
				165				170						175			
Asn	Ser	Lys	Arg	Tyr	Lys	Glu	Ala	Gln	Lys	Ile	Ser	Asp	Asp	Leu	Met		
			180					185					190				
Gln	Lys	Ile	Ser	Thr	Gln	Asn	Arg	Arg	Ala	Leu	Asp	Leu	Val	Ala	Ala		
		195					200					205					
Lys	Cys	Tyr	Tyr	Tyr	His	Ala	Arg	Val	Tyr	Glu	Phe	Leu	Asp	Lys	Leu		
	210				215					220							
Asp	Val	Val	Arg	Ser	Phe	Leu	His	Ala	Arg	Leu	Arg	Thr	Ala	Thr	Leu		
225					230					235					240		
Arg	His	Asp	Ala	Asp	Gly	Gln	Ala	Thr	Leu	Leu	Asn	Leu	Leu	Leu	Arg		
				245				250					255				
Asn	Tyr	Leu	His	Tyr	Ser	Leu	Tyr	Asp	Gln	Ala	Glu	Lys	Leu	Val	Ser		
			260					265					270				
Lys	Ser	Val	Phe	Pro	Glu	Gln	Ala	Asn	Asn	Asn	Glu	Trp	Ala	Arg	Tyr		
		275					280					285					
Leu	Tyr	Tyr	Thr	Gly	Arg	Ile	Lys	Ala	Ile	Gln	Leu	Glu	Tyr	Ser	Glu		
	290					295					300						
Ala	Arg	Arg	Thr	Met	Thr	Asn	Ala	Leu	Arg	Lys	Ala	Pro	Gln	His	Thr		
305					310					315					320		
Ala	Val	Gly	Phe	Lys	Gln	Thr	Val	His	Lys	Leu	Leu	Ile	Val	Val	Glu		
				325					330					335			
Leu	Leu	Leu	Gly	Glu	Ile	Pro	Asp	Arg	Leu	Gln	Phe	Arg	Gln	Pro	Ser		
			340				345						350				
Leu	Lys	Arg	Ser	Leu	Met	Pro	Tyr	Phe	Leu	Leu	Thr	Gln	Ala	Val	Arg		
		355					360					365					
Thr	Gly	Asn	Leu	Ala	Lys	Phe	Asn	Gln	Val	Leu	Asp	Gln	Phe	Gly	Glu		
	370					375					380						
Lys	Phe	Gln	Ala	Asp	Gly	Thr	Tyr	Thr	Leu	Ile	Ile	Arg	Leu	Arg	His		
385					390					395					400		
Asn	Val	Ile	Lys	Thr	Gly	Val	Arg	Met	Ile	Ser	Leu	Ser	Tyr	Ser	Arg		
				405					410					415			
Ile	Ser	Leu	Ala	Asp	Ile	Ala	Gln	Lys	Leu	Gln	Leu	Asp	Ser	Pro	Glu		
			420					425					430				
Asp	Ala	Glu	Phe	Ile	Val	Ala	Lys	Ala	Ile	Arg	Asp	Gly	Val	Ile	Glu		
		435					440					445					
Ala	Ser	Ile	Asn	His	Glu	Lys	Gly	Tyr	Val	Gln	Ser	Lys	Glu	Met	Ile		
	450					455					460						
Asp	Ile	Tyr	Ser	Thr	Arg	Glu	Pro	Gln	Leu	Ala	Phe	His	Gln	Arg	Ile		
465					470					475					480		

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Ser  Phe  Cys  Leu  Asp  Ile  His  Asn  Met  Ser  Val  Lys  Ala  Met  Arg  Phe
      485      490      495
Pro  Pro  Lys  Ser  Tyr  Asn  Lys  Asp  Leu  Glu  Ser  Ala  Glu  Glu  Arg  Arg
      500      505      510
Glu  Arg  Glu  Gln  Gln  Asp  Leu  Glu  Phe  Ala  Lys  Glu  Met  Ala  Glu  Asp
      515      520      525
Asp  Asp  Asp  Ser  Phe  Pro
      530
<210>  39
<211>  207
<212>  PRT
<213>  Homo sapiens

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<400>      39
Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
1      5      10      15
Leu Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro
20      25      30
Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu
35      40      45
Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys
50      55      60
Leu Val Ser Glu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu
65      70      75      80
Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser
85      90      95
Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His
100     105     110
Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile
115     120     125
Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala
130     135     140
Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala
145     150     155     160
Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala
165     170     175
Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser
180     185     190
Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro
195     200     205
<210>      40
<211>      989
<212>      PRT
<213>      Homo sapiens

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<400> 40															
Met	Lys	Val	Val	Asn	Leu	Lys	Gln	Ala	Ile	Leu	Gln	Ala	Trp	Lys	Glu
1				5					10					15	
Arg	Trp	Ser	Tyr	Tyr	Gln	Trp	Ala	Ile	Asn	Met	Lys	Lys	Phe	Phe	Pro
			20					25					30		
Lys	Gly	Ala	Thr	Trp	Asp	Ile	Leu	Asn	Leu	Ala	Asp	Ala	Leu	Leu	Glu
		35					40					45			
Gln	Ala	Met	Ile	Gly	Pro	Ser	Pro	Asn	Pro	Leu	Ile	Leu	Ser	Tyr	Leu
	50					55					60				
Lys	Tyr	Ala	Ile	Ser	Ser	Gln	Met	Val	Ser	Tyr	Ser	Ser	Val	Leu	Thr
65					70					75				80	



Ala	Ile	Ser	Lys	Phe	Asp	Asp	Phe	Ser	Arg	Asp	Leu	Cys	Val	Gln	Ala
				85					90					95	
Leu	Leu	Asp	Ile	Met	Asp	Met	Phe	Cys	Asp	Arg	Leu	Ser	Cys	His	Gly
			100					105					110		
Lys	Ala	Glu	Glu	Cys	Ile	Gly	Leu	Cys	Arg	Ala	Leu	Leu	Ser	Ala	Leu
		115					120					125			
His	Trp	Leu	Leu	Arg	Cys	Thr	Ala	Ala	Ser	Ala	Glu	Arg	Leu	Arg	Glu
		130					135				140				
Gly	Leu	Glu	Ala	Gly	Thr	Pro	Ala	Ala	Gly	Glu	Lys	Gln	Leu	Ala	Met
145					150					155					160
Cys	Leu	Gln	Arg	Leu	Glu	Lys	Thr	Leu	Ser	Ser	Thr	Lys	Asn	Arg	Ala
				165					170					175	
Leu	Leu	His	Ile	Ala	Lys	Leu	Glu	Glu	Ala	Ser	Ser	Trp	Thr	Ala	Ile
			180					185					190		
Glu	His	Ser	Leu	Leu	Lys	Leu	Gly	Glu	Ile	Leu	Thr	Asn	Leu	Ser	Asn
		195					200					205			
Pro	Gln	Leu	Arg	Ser	Gln	Ala	Glu	Gln	Cys	Gly	Thr	Leu	Ile	Arg	Ser
		210				215					220				
Ile	Pro	Thr	Met	Leu	Ser	Val	His	Ala	Glu	Gln	Met	His	Lys	Thr	Gly
225					230					235					240
Phe	Pro	Thr	Val	His	Ala	Val	Ile	Leu	Leu	Glu	Gly	Thr	Met	Asn	Leu
				245					250					255	
Thr	Gly	Glu	Thr	Gln	Ser	Leu	Val	Glu	Gln	Leu	Thr	Met	Val	Lys	Arg
			260					265					270		
Met	Gln	His	Ile	Pro	Thr	Pro	Leu	Phe	Val	Leu	Glu	Ile	Trp	Lys	Ala
		275					280					285			
Cys	Phe	Val	Gly	Leu	Ile	Glu	Ser	Pro	Glu	Gly	Thr	Glu	Glu	Leu	Lys
		290				295				300					
Trp	Thr	Ala	Phe	Thr	Phe	Leu	Lys	Ile	Pro	Gln	Val	Leu	Val	Lys	Leu
305					310					315					320
Lys	Lys	Tyr	Ser	His	Gly	Asp	Lys	Asp	Phe	Thr	Glu	Asp	Val	Asn	Cys
				325					330					335	
Ala	Phe	Glu	Phe	Leu	Leu	Lys	Leu	Thr	Pro	Leu	Leu	Asp	Lys	Ala	Asp
			340					345					350		
Gln	Arg	Cys	Asn	Cys	Asp	Cys	Thr	Asn	Phe	Leu	Leu	Gln	Glu	Cys	Gly
		355					360					365			
Lys	Gln	Gly	Leu	Leu	Ser	Glu	Ala	Ser	Val	Asn	Asn	Leu	Met	Ala	Lys
		370				375					380				
Arg	Lys	Ala	Asp	Arg	Glu	His	Ala	Pro	Gln	Gln	Lys	Ser	Gly	Glu	Asn
385					390					395					400
Ala	Asn	Ile	Gln	Pro	Asn	Ile	Gln	Leu	Ile	Leu	Arg	Ala	Glu	Pro	Thr
				405					410					415	
Val	Thr	Asn	Ile	Leu	Lys	Thr	Met	Asp	Ala	Asp	His	Ser	Lys	Ser	Pro
			420					425					430		
Glu	Gly	Leu	Leu	Gly	Val	Leu	Gly	His	Met	Leu	Ser	Gly	Lys	Ser	Leu
		435					440					445			
Asp	Leu	Leu	Leu	Ala	Ala	Ala	Ala	Ala	Thr	Gly	Lys	Leu	Lys	Ser	Phe
		450				455					460				
Ala	Arg	Lys	Phe	Ile	Asn	Leu	Asn	Glu	Phe	Thr	Thr	Tyr	Gly	Ser	Glu
465					470					475					480
Glu	Ser	Thr	Lys	Pro	Ala	Ser	Val	Arg	Ala	Leu	Leu	Phe	Asp	Ile	Ser
				485					490					495	
Phe	Leu	Met	Leu	Cys	His	Val	Ala	Gln	Thr	Tyr	Gly	Ser	Glu	Val	Ile
			500					505					510		
Leu	Ser	Glu	Ser	Arg	Thr	Gly	Ala	Glu	Val	Pro	Phe	Phe	Glu	Thr	Trp
		515					520					525			
Met	Gln	Thr	Cys	Met	Pro	Glu	Glu	Gly	Lys	Ile	Leu	Asn	Pro	Asp	His
		530				535					540				
Pro	Cys	Phe	Arg	Pro	Asp	Ser	Thr	Lys	Val	Glu	Ser	Leu	Val	Ala	Leu
545					550					555					560
Leu	Asn	Asn	Ser	Ser	Glu	Met	Lys	Leu	Val	Gln	Met	Lys	Trp	His	Glu
				565					570					575	
Ala	Cys	Leu	Ser	Ile	Ser	Ala	Ala	Ile	Leu	Glu	Ile	Leu	Asn	Ala	Trp
			580					585					590		
Glu	Asn	Gly	Val	Leu	Ala	Phe	Glu	Ser	Ile	Gln	Lys	Ile	Thr	Asp	Asn
		595					600						605		

Ile Lys Gly Lys Val Cys Ser Leu Ala Val Cys Ala Val Ala Trp Leu  
 610 615 620  
 Val Ala His Val Arg Met Leu Gly Leu Asp Glu Arg Glu Lys Ser Leu  
 625 630 635 640  
 Gln Met Ile Arg Gln Leu Ala Gly Pro Leu Phe Ser Glu Asn Thr Leu  
 645 650 655  
 Gln Phe Tyr Asn Glu Arg Val Val Ile Met Asn Ser Ile Leu Glu Arg  
 660 665 670  
 Met Cys Ala Asp Val Leu Gln Gln Thr Ala Thr Gln Ile Lys Phe Pro  
 675 680 685  
 Ser Thr Gly Val Asp Thr Met Pro Tyr Trp Asn Leu Leu Pro Pro Lys  
 690 695 700  
 Arg Pro Ile Lys Glu Val Leu Thr Asp Ile Phe Ala Lys Val Leu Glu  
 705 710 715 720  
 Lys Gly Trp Val Asp Ser Arg Ser Ile His Ile Phe Asp Thr Leu Leu  
 725 730 735  
 His Met Gly Gly Val Tyr Trp Phe Cys Asn Asn Leu Ile Lys Glu Leu  
 740 745 750  
 Leu Lys Glu Thr Arg Lys Glu His Thr Leu Arg Ala Val Glu Leu Leu  
 755 760 765  
 Tyr Ser Ile Phe Cys Leu Asp Met Gln Gln Val Thr Leu Val Leu Leu  
 770 775 780  
 Gly His Ile Leu Pro Gly Leu Leu Thr Asp Ser Ser Lys Trp His Ser  
 785 790 795 800  
 Leu Met Asp Pro Pro Gly Thr Ala Leu Ala Lys Leu Ala Val Trp Cys  
 805 810 815  
 Ala Leu Ser Ser Tyr Ser Ser His Lys Gly Gln Ala Ser Thr Arg Gln  
 820 825 830  
 Lys Lys Arg His Arg Glu Asp Ile Glu Asp Tyr Ile Ser Leu Phe Pro  
 835 840 845  
 Leu Asp Asp Val Gln Pro Ser Lys Leu Met Arg Leu Leu Ser Ser Asn  
 850 855 860  
 Glu Asp Asp Ala Asn Ile Leu Ser Ser Pro Thr Asp Arg Ser Met Ser  
 865 870 875 880  
 Ser Ser Leu Ser Ala Ser Gln Leu His Thr Val Asn Met Arg Asp Pro  
 885 890 895  
 Leu Asn Arg Val Leu Ala Asn Leu Phe Leu Leu Ile Ser Ser Ile Leu  
 900 905 910  
 Gly Ser Arg Thr Ala Gly Pro His Thr Gln Phe Val Gln Trp Phe Met  
 915 920 925  
 Glu Glu Cys Val Asp Cys Leu Glu Gln Gly Gly Arg Gly Ser Val Leu  
 930 935 940  
 Gln Phe Met Pro Phe Thr Thr Val Ser Glu Leu Val Lys Val Ser Ala  
 945 950 955 960  
 Met Ser Ser Pro Lys Val Val Leu Ala Ile Thr Asp Leu Ser Leu Pro  
 965 970 975  
 Leu Gly Arg Gln Val Ala Ala Lys Ala Ile Ala Ala Leu  
 980 985

&lt;210&gt; 41

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 41

Met Glu Gln Lys Pro Ser Lys Val Glu Cys Gly Ser Asp Pro Glu Glu  
 1 5 10 15  
 Asn Ser Ala Arg Ser Pro Asp Gly Lys Arg Lys Arg Lys Asn Gly Gln  
 20 25 30  
 Cys Ser Leu Lys Thr Ser Met Ser Gly Tyr Ile Pro Ser Tyr Leu Asp  
 35 40 45

Lys Asp Glu Gln Cys Val Val Cys Gly Asp Lys Ala Thr Gly Tyr His  
 50 55 60  
 Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Thr  
 65 70 75 80  
 Ile Gln Lys Asn Leu His Pro Thr Tyr Ser Cys Lys Tyr Asp Ser Cys  
 85 90 95  
 Cys Val Ile Asp Lys Ile Thr Arg Asn Gln Cys Gln Leu Cys Arg Phe  
 100 105 110  
 Lys Lys Cys Ile Ala Val Gly Met Ala Met Asp Leu Val Leu Asp Asp  
 115 120 125  
 Ser Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg  
 130 135 140  
 Arg Arg Lys Glu Glu Met Ile Arg Ser Leu Gln Gln Arg Pro Glu Pro  
 145 150 155 160  
 Thr Pro Glu Glu Trp Asp Leu Ile His Ile Ala Thr Glu Ala His Arg  
 165 170 175  
 Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys Phe Leu  
 180 185 190  
 Pro Asp Asp Ile Gly Gln Ser Pro Ile Val Ser Met Pro Asp Gly Asp  
 195 200 205  
 Lys Val Asp Leu Glu Ala Phe Ser Glu Phe Thr Lys Ile Ile Thr Pro  
 210 215 220  
 Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met Phe Ser  
 225 230 235 240  
 Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Lys Gly Cys Cys Met  
 245 250 255  
 Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp Pro Glu Ser Asp  
 260 265 270  
 Thr Leu Thr Leu Ser Gly Glu Met Ala Val Lys Arg Glu Gln Leu Lys  
 275 280 285  
 Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe Glu Leu Gly Lys  
 290 295 300  
 Ser Leu Ser Ala Phe Asn Leu Asp Asp Thr Glu Val Ala Leu Leu Gln  
 305 310 315 320  
 Ala Val Leu Leu Met Ser Thr Asp Arg Ser Gly Leu Leu Cys Val Asp  
 325 330 335  
 Lys Ile Glu Lys Ser Gln Glu Ala Tyr Leu Leu Ala Phe Glu His Tyr  
 340 345 350  
 Val Asn His Arg Lys His Asn Ile Pro His Phe Trp Pro Lys Leu Leu  
 355 360 365  
 Met Lys Glu Arg Glu Val Gln Ser Ser Ile Leu Tyr Lys Gly Ala Ala  
 370 375 380  
 Ala Glu Gly Arg Pro Gly Gly Ser Leu Gly Val His Pro Glu Gly Gln  
 385 390 395 400  
 Gln Leu Leu Gly Met His Val Val Gln Gly Pro Gln Val Arg Gln Leu  
 405 410 415  
 Glu Gln Gln Leu Gly Glu Ala Gly Ser Leu Gln Gly Pro Val Leu Gln  
 420 425 430  
 His Gln Ser Pro Lys Ser Pro Gln Gln Arg Leu Leu Glu Leu Leu His  
 435 440 445  
 Arg Ser Gly Ile Leu His Ala Arg Ala Val Cys Gly Glu Asp Asp Ser  
 450 455 460  
 Ser Glu Ala Asp Ser Pro Ser Ser Ser Glu Glu Glu Pro Glu Val Cys  
 465 470 475 480  
 Glu Asp Leu Ala Gly Asn Ala Ala Ser Pro  
 485 490

&lt;210&gt; 42

&lt;211&gt; 614

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 42  
 Met Thr Thr Leu Asp Ser Asn Asn Asn Thr Gly Gly Val Ile Thr Tyr  
 1 5 10 15  
 Ile Gly Ser Ser Gly Ser Ser Pro Ser Arg Thr Ser Pro Glu Ser Leu  
 20 25 30  
 Tyr Ser Asp Asn Ser Asn Gly Ser Phe Gln Ser Leu Thr Gln Gly Cys  
 35 40 45  
 Pro Thr Tyr Phe Pro Pro Ser Pro Thr Gly Ser Leu Thr Gln Asp Pro  
 50 55 60  
 Ala Arg Ser Phe Gly Ser Ile Pro Pro Ser Leu Ser Asp Asp Gly Ser  
 65 70 75 80  
 Pro Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Phe Tyr Asn  
 85 90 95  
 Gly Ser Pro Pro Gly Ser Leu Gln Val Ala Met Glu Asp Ser Ser Arg  
 100 105 110  
 Val Ser Pro Ser Lys Ser Thr Ser Asn Ile Thr Lys Leu Asn Gly Met  
 115 120 125  
 Val Leu Leu Cys Lys Val Cys Gly Asp Val Ala Ser Gly Phe His Tyr  
 130 135 140  
 Gly Val Leu Ala Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Ser Ile  
 145 150 155 160  
 Gln Gln Asn Ile Gln Tyr Lys Arg Cys Leu Lys Asn Glu Asn Cys Ser  
 165 170 175  
 Ile Val Arg Ile Asn Arg Asn Arg Cys Gln Gln Cys Arg Phe Lys Lys  
 180 185 190  
 Cys Leu Ser Val Gly Met Ser Arg Asp Ala Val Arg Phe Gly Arg Ile  
 195 200 205  
 Pro Lys Arg Glu Lys Gln Arg Met Leu Ala Glu Met Gln Ser Ala Met  
 210 215 220  
 Asn Leu Ala Asn Asn Gln Leu Ser Ser Gln Cys Pro Leu Glu Thr Ser  
 225 230 235 240  
 Pro Thr Gln His Pro Thr Pro Gly Pro Met Gly Pro Ser Pro Pro Pro  
 245 250 255  
 Ala Pro Val Pro Ser Pro Leu Val Gly Phe Ser Gln Phe Pro Gln Gln  
 260 265 270  
 Leu Thr Pro Pro Arg Ser Pro Ser Pro Glu Pro Thr Val Glu Asp Val  
 275 280 285  
 Ile Ser Gln Val Ala Arg Ala His Arg Glu Ile Phe Thr Tyr Ala His  
 290 295 300  
 Asp Lys Leu Gly Ser Ser Pro Gly Asn Phe Asn Ala Asn His Ala Ser  
 305 310 315 320  
 Gly Ser Pro Pro Ala Thr Thr Pro His Arg Trp Glu Asn Gln Gly Cys  
 325 330 335  
 Pro Pro Ala Pro Asn Asp Asn Asn Thr Leu Ala Ala Gln Arg His Asn  
 340 345 350  
 Glu Ala Leu Asn Gly Leu Arg Gln Ala Pro Ser Ser Tyr Pro Pro Thr  
 355 360 365  
 Trp Pro Pro Gly Pro Ala His Ser Cys His Gln Ser Asn Ser Asn  
 370 375 380  
 Gly His Arg Leu Cys Pro Thr His Val Tyr Ala Ala Pro Glu Gly Lys  
 385 390 395 400  
 Ala Pro Ala Asn Ser Pro Arg Gln Gly Asn Ser Lys Asn Val Leu Leu  
 405 410 415  
 Ala Cys Pro Met Asn Met Tyr Pro His Gly Arg Ser Gly Arg Thr Val  
 420 425 430  
 Gln Glu Ile Trp Glu Asp Phe Ser Met Ser Phe Thr Pro Ala Val Arg  
 435 440 445  
 Glu Val Val Glu Phe Ala Lys His Ile Pro Gly Phe Arg Asp Leu Ser  
 450 455 460  
 Gln His Asp Gln Val Thr Leu Leu Lys Ala Gly Thr Phe Glu Val Leu  
 465 470 475 480  
 Met Val Arg Phe Ala Ser Leu Phe Asn Val Lys Asp Gln Thr Val Met  
 485 490 495  
 Phe Leu Ser Arg Thr Thr Tyr Ser Leu Gln Glu Leu Gly Ala Met Gly  
 500 505 510

Met Gly Asp Leu Leu Ser Ala Met Phe Asp Phe Ser Glu Lys Leu Asn  
           515                                  520                                  525  
 Ser Leu Ala Leu Thr Glu Glu Glu Leu Gly Leu Phe Thr Ala Val Val  
           530                                  535                                  540  
 Leu Val Ser Ala Asp Arg Ser Gly Met Glu Asn Ser Ala Ser Val Glu  
   545                                  550                                  555                                  560  
 Gln Leu Gln Glu Thr Leu Leu Arg Ala Leu Arg Ala Leu Val Leu Lys  
                                   565                                  570                                  575  
 Asn Arg Pro Leu Glu Thr Ser Arg Phe Thr Lys Leu Leu Leu Lys Leu  
                                   580                                  585                                  590  
 Pro Asp Leu Arg Thr Leu Asn Asn Met His Ser Glu Lys Leu Leu Ser  
           595                                  600                                  605  
 Phe Arg Val Asp Ala Gln  
           610  
 <210> 43  
  
 <211> 703  
  
 <212> PRT  
  
 <213> Homo sapiens

<400> 43  
 Met Ala Asp Arg Arg Arg Gln Arg Ala Ser Gln Asp Thr Glu Asp Glu  
   1                                  5                                  10                                  15  
 Glu Ser Gly Ala Ser Gly Ser Asp Ser Gly Gly Ser Pro Leu Arg Gly  
           20                                  25                                  30  
 Gly Gly Ser Cys Ser Gly Ser Ala Gly Gly Gly Ser Gly Ser Leu  
           35                                  40                                  45  
 Pro Ser Gln Arg Gly Gly Arg Thr Gly Ala Leu His Leu Arg Arg Val  
   50                                  55                                  60  
 Glu Ser Gly Gly Ala Lys Ser Ala Glu Glu Ser Glu Cys Glu Ser Glu  
   65                                  70                                  75                                  80  
 Asp Gly Ile Glu Gly Asp Ala Val Leu Ser Asp Tyr Glu Ser Ala Glu  
           85                                  90                                  95  
 Asp Ser Glu Gly Glu Glu Gly Glu Tyr Ser Glu Glu Glu Asn Ser Lys  
           100                                  105                                  110  
 Val Glu Leu Lys Ser Glu Ala Asn Asp Ala Val Asn Ser Ser Thr Lys  
           115                                  120                                  125  
 Glu Glu Lys Gly Glu Glu Lys Pro Asp Thr Lys Ser Thr Val Thr Gly  
   130                                  135                                  140  
 Glu Arg Gln Ser Gly Asp Gly Gln Glu Ser Thr Glu Pro Val Glu Asn  
   145                                  150                                  155                                  160  
 Lys Val Gly Lys Lys Gly Pro Lys His Leu Asp Asp Asp Glu Asp Arg  
           165                                  170                                  175  
 Lys Asn Pro Ala Tyr Ile Pro Arg Lys Gly Leu Phe Phe Glu His Asp  
           180                                  185                                  190  
 Leu Arg Gly Gln Thr Gln Glu Glu Glu Val Arg Pro Lys Gly Arg Gln  
           195                                  200                                  205  
 Arg Lys Leu Trp Lys Asp Glu Gly Arg Trp Glu His Asp Lys Phe Arg  
   210                                  215                                  220  
 Glu Asp Glu Gln Ala Pro Lys Ser Arg Gln Glu Leu Ile Ala Leu Tyr  
   225                                  230                                  235                                  240  
 Gly Tyr Asp Ile Arg Ser Ala His Asn Pro Asp Asp Ile Lys Pro Arg  
           245                                  250                                  255  
 Arg Ile Arg Lys Pro Arg Tyr Gly Ser Pro Pro Gln Arg Asp Pro Asn  
           260                                  265                                  270  
 Trp Asn Gly Glu Arg Leu Asn Lys Ser His Arg His Gln Gly Leu Gly  
   275                                  280                                  285  
 Gly Thr Leu Pro Pro Arg Thr Phe Ile Asn Arg Asn Ala Ala Gly Thr  
   290                                  295                                  300  
 Gly Arg Met Ser Ala Pro Arg Asn Tyr Ser Arg Ser Gly Gly Phe Lys  
   305                                  310                                  315                                  320

Glu Gly Arg Ala Gly Phe Arg Pro Val Glu Ala Gly Gly Gln His Gly  
 325 330 335  
 Gly Arg Ser Gly Glu Thr Val Lys His Glu Ile Ser Tyr Arg Ser Arg  
 340 345 350  
 Arg Leu Glu Gln Thr Ser Val Arg Asp Pro Ser Pro Glu Ala Asp Ala  
 355 360 365  
 Pro Val Leu Gly Ser Pro Glu Lys Glu Glu Ala Ala Ser Glu Pro Pro  
 370 375 380  
 Ala Ala Ala Pro Asp Ala Ala Pro Pro Pro Pro Asp Arg Pro Ile Glu  
 385 390 395 400  
 Lys Lys Ser Tyr Ser Arg Ala Arg Arg Thr Arg Thr Lys Val Gly Asp  
 405 410 415  
 Ala Val Lys Leu Ala Glu Glu Val Pro Pro Pro Glu Gly Leu Ile  
 420 425 430  
 Pro Ala Pro Pro Val Pro Glu Thr Thr Pro Thr Pro Thr Lys Thr  
 435 440 445  
 Gly Thr Trp Glu Ala Pro Val Asp Ser Ser Thr Ser Gly Leu Glu Gln  
 450 455 460  
 Asp Val Ala Gln Leu Asn Ile Ala Glu Gln Asn Trp Ser Pro Gly Gln  
 465 470 475 480  
 Pro Ser Phe Leu Gln Pro Arg Glu Leu Arg Gly Met Pro Asn His Ile  
 485 490 495  
 His Met Gly Ala Gly Pro Pro Pro Gln Phe Asn Arg Met Glu Glu Met  
 500 505 510  
 Gly Val Gln Gly Gly Arg Ala Lys Arg Tyr Ser Ser Gln Arg Gln Arg  
 515 520 525  
 Pro Val Pro Glu Pro Pro Ala Pro Pro Val His Ile Ser Ile Met Glu  
 530 535 540  
 Gly His Tyr Tyr Asp Pro Leu Gln Phe Gln Gly Pro Ile Tyr Thr His  
 545 550 555 560  
 Gly Asp Ser Pro Ala Pro Leu Pro Pro Gln Gly Met Leu Val Gln Pro  
 565 570 575  
 Gly Met Asn Leu Pro His Pro Gly Leu His Pro His Gln Thr Pro Ala  
 580 585 590  
 Pro Leu Pro Asn Pro Gly Leu Tyr Pro Pro Pro Val Ser Met Ser Pro  
 595 600 605  
 Gly Gln Pro Pro Gln Gln Leu Leu Ala Pro Thr Tyr Phe Ser Ala  
 610 615 620  
 Pro Gly Val Met Asn Phe Gly Asn Pro Ser Tyr Pro Tyr Ala Pro Gly  
 625 630 635 640  
 Ala Leu Pro Pro Pro Pro Pro Pro His Leu Tyr Pro Asn Thr Gln Ala  
 645 650 655  
 Pro Ser Gln Val Tyr Gly Gly Val Thr Tyr Tyr Asn Pro Ala Gln Gln  
 660 665 670  
 Gln Val Gln Pro Lys Pro Ser Pro Pro Arg Arg Thr Pro Gln Pro Val  
 675 680 685  
 Thr Ile Lys Pro Pro Pro Pro Glu Val Val Ser Arg Gly Ser Ser  
 690 695 700  
 <210> 44  
 <211> 560  
 <212> PRT  
 <213> Homo sapiens  
 <400> 44  
 Met Pro Gln Thr Arg Ser Gln Ala Gln Ala Thr Ile Ser Phe Pro Lys  
 1 5 10 15  
 Arg Lys Leu Ser Arg Ala Leu Asn Lys Ala Lys Asn Ser Ser Asp Ala  
 20 25 30  
 Lys Leu Glu Pro Thr Asn Val Gln Thr Val Thr Cys Ser Pro Arg Val  
 35 40 45

Lys Ala Leu Pro Leu Ser Pro Arg Lys Arg Leu Gly Asp Asp Asn Leu  
 50 55 60  
 Cys Asn Thr Pro His Leu Pro Pro Cys Ser Pro Pro Lys Gln Gly Lys  
 65 70 75 80  
 Lys Glu Asn Gly Pro His Ser His Thr Leu Lys Gly Arg Arg Leu  
 85 90 95  
 Val Phe Asp Asn Gln Leu Thr Ile Lys Ser Pro Ser Lys Arg Glu Leu  
 100 105 110  
 Ala Lys Val His Gln Asn Lys Ile Leu Ser Ser Val Arg Lys Ser Gln  
 115 120 125  
 Glu Ile Thr Thr Asn Ser Glu Gln Arg Cys Pro Leu Lys Lys Glu Ser  
 130 135 140  
 Ala Cys Val Arg Leu Phe Lys Gln Glu Gly Thr Cys Tyr Gln Gln Ala  
 145 150 155 160  
 Lys Leu Val Leu Asn Thr Ala Val Pro Asp Arg Leu Pro Ala Arg Glu  
 165 170 175  
 Arg Glu Met Asp Val Ile Arg Asn Phe Leu Arg Glu His Ile Cys Gly  
 180 185 190  
 Lys Lys Ala Gly Ser Leu Tyr Leu Ser Gly Ala Pro Gly Thr Gly Lys  
 195 200 205  
 Thr Ala Cys Leu Ser Arg Ile Leu Gln Asp Leu Lys Lys Glu Leu Lys  
 210 215 220  
 Gly Phe Lys Thr Ile Met Leu Asn Cys Met Ser Leu Arg Thr Ala Gln  
 225 230 235 240  
 Ala Val Phe Pro Ala Ile Ala Gln Glu Ile Cys Gln Glu Glu Val Ser  
 245 250 255  
 Arg Pro Ala Gly Lys Asp Met Met Arg Lys Leu Glu Lys His Met Thr  
 260 265 270  
 Ala Glu Lys Gly Pro Met Ile Val Leu Val Leu Asp Glu Met Asp Gln  
 275 280 285  
 Leu Asp Ser Lys Gly Gln Asp Val Leu Tyr Thr Leu Phe Glu Trp Pro  
 290 295 300  
 Trp Leu Ser Asn Ser His Leu Val Leu Ile Gly Ile Ala Asn Thr Leu  
 305 310 315 320  
 Asp Leu Thr Asp Arg Ile Leu Pro Arg Leu Gln Ala Arg Glu Lys Cys  
 325 330 335  
 Lys Pro Gln Leu Leu Asn Phe Pro Pro Tyr Thr Arg Asn Gln Ile Val  
 340 345 350  
 Thr Ile Leu Gln Asp Arg Leu Asn Gln Val Ser Arg Asp Gln Val Leu  
 355 360 365  
 Asp Asn Ala Ala Val Gln Phe Cys Ala Arg Lys Val Ser Ala Val Ser  
 370 375 380  
 Gly Asp Val Arg Lys Ala Leu Asp Val Cys Arg Arg Ala Ile Glu Ile  
 385 390 395 400  
 Val Glu Ser Asp Val Lys Ser Gln Thr Ile Leu Lys Pro Leu Ser Glu  
 405 410 415  
 Cys Lys Ser Pro Ser Glu Pro Leu Ile Pro Lys Arg Val Gly Leu Ile  
 420 425 430  
 His Ile Ser Gln Val Ile Ser Glu Val Asp Gly Asn Arg Met Thr Leu  
 435 440 445  
 Ser Gln Glu Gly Ala Gln Asp Ser Phe Pro Leu Gln Gln Lys Ile Leu  
 450 455 460  
 Val Cys Ser Leu Met Leu Leu Ile Arg Gln Leu Lys Ile Lys Glu Val  
 465 470 475 480  
 Thr Leu Gly Lys Leu Tyr Glu Ala Tyr Ser Lys Val Cys Arg Lys Gln  
 485 490 495  
 Gln Val Ala Ala Val Asp Gln Ser Glu Cys Leu Ser Leu Ser Gly Leu  
 500 505 510  
 Leu Glu Ala Arg Gly Ile Leu Gly Leu Lys Arg Asn Lys Glu Thr Arg  
 515 520 525  
 Leu Thr Lys Val Phe Phe Lys Ile Glu Glu Lys Glu Ile Glu His Ala  
 530 535 540  
 Leu Lys Asp Lys Ala Leu Ile Gly Asn Ile Leu Ala Thr Gly Leu Pro  
 545 550 555 560  
 <210> 45

&lt;211&gt; 462

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

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Met Ala Ser Asn Ser Ser Ser Cys Pro Thr Pro Gly Gly Gly His Leu
1      5      10      15
Asn Gly Tyr Pro Val Pro Pro Tyr Ala Phe Phe Phe Pro Pro Met Leu
20      25      30
Gly Gly Leu Ser Pro Pro Gly Ala Leu Thr Thr Leu Gln His Gln Leu
35      40      45
Pro Val Ser Gly Tyr Ser Thr Pro Ser Pro Ala Thr Ile Glu Thr Gln
50      55      60
Ser Ser Ser Ser Glu Glu Ile Val Pro Ser Pro Ser Pro Pro Pro
65      70      75      80
Leu Pro Arg Ile Tyr Lys Pro Cys Phe Val Cys Gln Asp Lys Ser Ser
85      90      95
Gly Tyr His Tyr Gly Val Ser Ala Cys Glu Gly Cys Lys Gly Phe Phe
100     105     110
Arg Arg Ser Ile Gln Lys Asn Met Val Tyr Thr Cys His Arg Asp Lys
115     120     125
Asn Cys Ile Ile Asn Lys Val Thr Arg Asn Arg Cys Gln Tyr Cys Arg
130     135     140
Leu Gln Lys Cys Phe Glu Val Gly Met Ser Lys Glu Ser Val Arg Asn
145     150     155     160
Asp Arg Asn Lys Lys Lys Glu Val Pro Lys Pro Glu Cys Ser Glu
165     170     175
Ser Tyr Thr Leu Thr Pro Glu Val Gly Glu Leu Ile Glu Lys Val Arg
180     185     190
Lys Ala His Gln Glu Thr Phe Pro Ala Leu Cys Gln Leu Gly Lys Tyr
195     200     205
Thr Thr Asn Asn Ser Ser Glu Gln Arg Val Ser Leu Asp Ile Asp Leu
210     215     220
Trp Asp Lys Phe Ser Glu Leu Ser Thr Lys Cys Ile Ile Lys Thr Val
225     230     235     240
Glu Phe Ala Lys Gln Leu Pro Gly Phe Thr Thr Leu Thr Ile Ala Asp
245     250     255
Gln Ile Thr Leu Lys Ala Ala Cys Leu Asp Ile Leu Ile Leu Arg
260     265     270
Ile Cys Thr Arg Tyr Thr Pro Glu Gln Asp Thr Met Thr Phe Ser Asp
275     280     285
Gly Leu Thr Leu Asn Arg Thr Gln Met His Asn Ala Gly Phe Gly Pro
290     295     300
Leu Thr Asp Leu Val Phe Ala Phe Ala Asn Gln Leu Leu Pro Leu Glu
305     310     315     320
Met Asp Asp Ala Glu Thr Gly Leu Leu Ser Ala Ile Cys Leu Ile Cys
325     330     335
Gly Asp Arg Gln Asp Leu Glu Gln Pro Asp Arg Val Asp Met Leu Gln
340     345     350
Glu Pro Leu Leu Glu Ala Leu Lys Val Tyr Val Arg Lys Arg Arg Pro
355     360     365
Ser Arg Pro His Met Phe Pro Lys Met Leu Met Lys Ile Thr Asp Leu
370     375     380
Arg Ser Ile Ser Ala Lys Gly Ala Glu Arg Val Ile Thr Leu Lys Met
385     390     395     400
Glu Ile Pro Gly Ser Met Pro Pro Leu Ile Gln Glu Met Leu Glu Asn
405     410     415
Ser Glu Gly Leu Asp Thr Leu Ser Gly Gln Pro Gly Gly Gly Gly Arg
420     425     430
Asp Gly Gly Gly Leu Ala Pro Pro Gly Ser Cys Ser Pro Ser Leu
435     440     445

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Ser Pro Ser Ser Asn Arg Ser Ser Pro Ala Thr His Ser Pro  
 450 455 460

<210> 46

<211> 1531

<212> PRT

<213> Homo sapiens

<400> 46

Met Glu Val Ser Pro Leu Gln Pro Val Asn Glu Asn Met Gln Val Asn  
 1 5 10 15  
 Lys Ile Lys Lys Asn Glu Asp Ala Lys Lys Arg Leu Ser Val Glu Arg  
 20 25 30  
 Ile Tyr Gln Lys Lys Thr Gln Leu Glu His Ile Leu Leu Arg Pro Asp  
 35 40 45  
 Thr Tyr Ile Gly Ser Val Glu Leu Val Thr Gln Gln Met Trp Val Tyr  
 50 55 60  
 Asp Glu Asp Val Gly Ile Asn Tyr Arg Glu Val Thr Phe Val Pro Gly  
 65 70 75 80  
 Leu Tyr Lys Ile Phe Asp Glu Ile Leu Val Asn Ala Ala Asp Asn Lys  
 85 90 95  
 Gln Arg Asp Pro Lys Met Ser Cys Ile Arg Val Thr Ile Asp Pro Glu  
 100 105 110  
 Asn Asn Leu Ile Ser Ile Trp Asn Asn Gly Lys Gly Ile Pro Val Val  
 115 120 125  
 Glu His Lys Val Glu Lys Met Tyr Val Pro Ala Leu Ile Phe Gly Gln  
 130 135 140  
 Leu Leu Thr Ser Ser Asn Tyr Asp Asp Asp Glu Lys Lys Val Thr Gly  
 145 150 155 160  
 Gly Arg Asn Gly Tyr Gly Ala Lys Leu Cys Asn Ile Phe Ser Thr Lys  
 165 170 175  
 Phe Thr Val Glu Thr Ala Ser Arg Glu Tyr Lys Lys Met Phe Lys Gln  
 180 185 190  
 Thr Trp Met Asp Asn Met Gly Arg Ala Gly Glu Met Glu Leu Lys Pro  
 195 200 205  
 Phe Asn Gly Glu Asp Tyr Thr Cys Ile Thr Phe Gln Pro Asp Leu Ser  
 210 215 220  
 Lys Phe Lys Met Gln Ser Leu Asp Lys Asp Ile Val Ala Leu Met Val  
 225 230 235 240  
 Arg Arg Ala Tyr Asp Ile Ala Gly Ser Thr Lys Asp Val Lys Val Phe  
 245 250 255  
 Leu Asn Gly Asn Lys Leu Pro Val Lys Gly Phe Arg Ser Tyr Val Asp  
 260 265 270  
 Met Tyr Leu Lys Asp Lys Leu Asp Glu Thr Gly Asn Ser Leu Lys Val  
 275 280 285  
 Ile His Glu Gln Val Asn His Arg Trp Glu Val Cys Leu Thr Met Ser  
 290 295 300  
 Glu Lys Gly Phe Gln Gln Ile Ser Phe Val Asn Ser Ile Ala Thr Ser  
 305 310 315 320  
 Lys Gly Gly Arg His Val Asp Tyr Val Ala Asp Gln Ile Val Thr Lys  
 325 330 335  
 Leu Val Asp Val Val Lys Lys Lys Asn Lys Gly Gly Val Ala Val Lys  
 340 345 350  
 Ala His Gln Val Lys Asn His Met Trp Ile Phe Val Asn Ala Leu Ile  
 355 360 365  
 Glu Asn Pro Thr Phe Asp Ser Gln Thr Lys Glu Asn Met Thr Leu Gln  
 370 375 380  
 Pro Lys Ser Phe Gly Ser Thr Cys Gln Leu Ser Glu Lys Phe Ile Lys  
 385 390 395 400  
 Ala Ala Ile Gly Cys Gly Ile Val Glu Ser Ile Leu Asn Trp Val Lys  
 405 410 415

Phe	Lys	Ala	Gln	Val	Gln	Leu	Asn	Lys	Lys	Cys	Ser	Ala	Val	Lys	His
			420					425					430		
Asn	Arg	Ile	Lys	Gly	Ile	Pro	Lys	Leu	Asp	Asp	Ala	Asn	Asp	Ala	Gly
		435					440					445			
Gly	Arg	Asn	Ser	Thr	Glu	Cys	Thr	Leu	Ile	Leu	Thr	Glu	Gly	Asp	Ser
	450					455					460				
Ala	Lys	Thr	Leu	Ala	Val	Ser	Gly	Leu	Gly	Val	Val	Gly	Arg	Asp	Lys
465					470					475					480
Tyr	Gly	Val	Phe	Pro	Leu	Arg	Gly	Lys	Ile	Leu	Asn	Val	Arg	Glu	Ala
			485					490						495	
Ser	His	Lys	Gln	Ile	Met	Glu	Asn	Ala	Glu	Ile	Asn	Asn	Ile	Ile	Lys
		500						505					510		
Ile	Val	Gly	Leu	Gln	Tyr	Lys	Lys	Asn	Tyr	Glu	Asp	Glu	Asp	Ser	Leu
		515					520					525			
Lys	Thr	Leu	Arg	Tyr	Gly	Lys	Ile	Met	Ile	Met	Thr	Asp	Gln	Asp	Gln
	530					535					540				
Asp	Gly	Ser	His	Ile	Lys	Gly	Leu	Leu	Ile	Asn	Phe	Ile	His	His	Asn
545					550					555					560
Trp	Pro	Ser	Leu	Leu	Arg	His	Arg	Phe	Leu	Glu	Glu	Phe	Ile	Thr	Pro
			565					570						575	
Ile	Val	Lys	Val	Ser	Lys	Asn	Lys	Gln	Glu	Met	Ala	Phe	Tyr	Ser	Leu
			580					585					590		
Pro	Glu	Phe	Glu	Glu	Trp	Lys	Ser	Ser	Thr	Pro	Asn	His	Lys	Lys	Trp
		595					600					605			
Lys	Val	Lys	Tyr	Tyr	Lys	Gly	Leu	Gly	Thr	Ser	Thr	Ser	Lys	Glu	Ala
	610					615					620				
Lys	Glu	Tyr	Phe	Ala	Asp	Met	Lys	Arg	His	Arg	Ile	Gln	Phe	Lys	Tyr
625					630					635					640
Ser	Gly	Pro	Glu	Asp	Asp	Ala	Ala	Ile	Ser	Leu	Ala	Phe	Ser	Lys	Lys
				645					650					655	
Gln	Ile	Asp	Asp	Arg	Lys	Glu	Trp	Leu	Thr	Asn	Phe	Met	Glu	Asp	Arg
			660					665					670		
Arg	Gln	Arg	Lys	Leu	Leu	Gly	Leu	Pro	Glu	Asp	Tyr	Leu	Tyr	Gly	Gln
		675					680					685			
Thr	Thr	Thr	Tyr	Leu	Thr	Tyr	Asn	Asp	Phe	Ile	Asn	Lys	Glu	Leu	Ile
	690					695					700				
Leu	Phe	Ser	Asn	Ser	Asp	Asn	Glu	Arg	Ser	Ile	Pro	Ser	Met	Val	Asp
705					710					715					720
Gly	Leu	Lys	Pro	Gly	Gln	Arg	Lys	Val	Leu	Phe	Thr	Cys	Phe	Lys	Arg
			725					730						735	
Asn	Asp	Lys	Arg	Glu	Val	Lys	Val	Ala	Gln	Leu	Ala	Gly	Ser	Val	Ala
			740					745					750		
Glu	Met	Ser	Ser	Tyr	His	His	Gly	Glu	Met	Ser	Leu	Met	Met	Thr	Ile
		755					760					765			
Ile	Asn	Leu	Ala	Gln	Asn	Phe	Val	Gly	Ser	Asn	Asn	Leu	Asn	Leu	Leu
	770					775					780				
Gln	Pro	Ile	Gly	Gln	Phe	Gly	Thr	Arg	Leu	His	Gly	Gly	Lys	Asp	Ser
785					790					795					800
Ala	Ser	Pro	Arg	Tyr	Ile	Phe	Thr	Met	Leu	Ser	Ser	Leu	Ala	Arg	Leu
			805					810						815	
Leu	Phe	Pro	Pro	Lys	Asp	Asp	His	Thr	Leu	Lys	Phe	Leu	Tyr	Asp	Asp
			820					825					830		
Asn	Gln	Arg	Val	Glu	Pro	Glu	Trp	Tyr	Ile	Pro	Ile	Ile	Pro	Met	Val
		835					840					845			
Leu	Ile	Asn	Gly	Ala	Glu	Gly	Ile	Gly	Thr	Gly	Trp	Ser	Cys	Lys	Ile
	850					855					860				
Pro	Asn	Phe	Asp	Val	Arg	Glu	Ile	Val	Asn	Asn	Ile	Arg	Arg	Leu	Met
865					870					875					880
Asp	Gly	Glu	Glu	Pro	Leu	Pro	Met	Leu	Pro	Ser	Tyr	Lys	Asn	Phe	Lys
			885					890					895		
Gly	Thr	Ile	Glu	Glu	Leu	Ala	Pro	Asn	Gln	Tyr	Val	Ile	Ser	Gly	Glu
			900					905					910		
Val	Ala	Ile	Leu	Asn	Ser	Thr	Thr	Ile	Glu	Ile	Ser	Glu	Leu	Pro	Val
		915					920					925			
Arg	Thr	Trp	Thr	Gln	Thr	Tyr	Lys	Glu	Gln	Val	Leu	Glu	Pro	Met	Leu
	930					935					940				

Asn	Gly	Thr	Glu	Lys	Thr	Pro	Pro	Leu	Ile	Thr	Asp	Tyr	Arg	Glu	Tyr	945	950	955	960
His	Thr	Asp	Thr	Thr	Val	Lys	Phe	Val	Val	Lys	Met	Thr	Glu	Glu	Lys	965	970	975	
Leu	Ala	Glu	Ala	Glu	Arg	Val	Gly	Leu	His	Lys	Val	Phe	Lys	Leu	Gln	980	985	990	
Thr	Ser	Leu	Thr	Cys	Asn	Ser	Met	Val	Leu	Phe	Asp	His	Val	Gly	Cys	995	1000	1005	
Leu	Lys	Lys	Tyr	Asp	Thr	Val	Leu	Asp	Ile	Leu	Arg	Asp	Phe	Phe		1010	1015	1020	
Glu	Leu	Arg	Leu	Lys	Tyr	Tyr	Gly	Leu	Arg	Lys	Glu	Trp	Leu	Leu		1025	1030	1035	
Gly	Met	Leu	Gly	Ala	Glu	Ser	Ala	Lys	Leu	Asn	Asn	Gln	Ala	Arg		1040	1045	1050	
Phe	Ile	Leu	Glu	Lys	Ile	Asp	Gly	Lys	Ile	Ile	Ile	Glu	Asn	Lys		1055	1060	1065	
Pro	Lys	Lys	Glu	Leu	Ile	Lys	Val	Leu	Ile	Gln	Arg	Gly	Tyr	Asp		1070	1075	1080	
Ser	Asp	Pro	Val	Lys	Ala	Trp	Lys	Glu	Ala	Gln	Gln	Lys	Val	Pro		1085	1090	1095	
Asp	Glu	Glu	Glu	Asn	Glu	Glu	Ser	Asp	Asn	Glu	Lys	Glu	Thr	Glu		1100	1105	1110	
Lys	Ser	Asp	Ser	Val	Thr	Asp	Ser	Gly	Pro	Thr	Phe	Asn	Tyr	Leu		1115	1120	1125	
Leu	Asp	Met	Pro	Leu	Trp	Tyr	Leu	Thr	Lys	Glu	Lys	Lys	Asp	Glu		1130	1135	1140	
Leu	Cys	Arg	Leu	Arg	Asn	Glu	Lys	Glu	Gln	Glu	Leu	Asp	Thr	Leu		1145	1150	1155	
Lys	Arg	Lys	Ser	Pro	Ser	Asp	Leu	Trp	Lys	Glu	Asp	Leu	Ala	Thr		1160	1165	1170	
Phe	Ile	Glu	Glu	Leu	Glu	Ala	Val	Glu	Ala	Lys	Glu	Lys	Gln	Asp		1175	1180	1185	
Glu	Gln	Val	Gly	Leu	Pro	Gly	Lys	Gly	Gly	Lys	Ala	Lys	Gly	Lys		1190	1195	1200	
Lys	Thr	Gln	Met	Ala	Glu	Val	Leu	Pro	Ser	Pro	Arg	Gly	Gln	Arg		1205	1210	1215	
Val	Ile	Pro	Arg	Ile	Thr	Ile	Glu	Met	Lys	Ala	Glu	Ala	Glu	Lys		1220	1225	1230	
Lys	Asn	Lys	Lys	Lys	Ile	Lys	Asn	Glu	Asn	Thr	Glu	Gly	Ser	Pro		1235	1240	1245	
Gln	Glu	Asp	Gly	Val	Glu	Leu	Glu	Gly	Leu	Lys	Gln	Arg	Leu	Glu		1250	1255	1260	
Lys	Lys	Gln	Lys	Arg	Glu	Pro	Gly	Thr	Lys	Thr	Lys	Lys	Gln	Thr		1265	1270	1275	
Thr	Leu	Ala	Phe	Lys	Pro	Ile	Lys	Lys	Gly	Lys	Lys	Arg	Asn	Pro		1280	1285	1290	
Trp	Ser	Asp	Ser	Glu	Ser	Asp	Arg	Ser	Ser	Asp	Glu	Ser	Asn	Phe		1295	1300	1305	
Asp	Val	Pro	Pro	Arg	Glu	Thr	Glu	Pro	Arg	Arg	Ala	Ala	Thr	Lys		1310	1315	1320	
Thr	Lys	Phe	Thr	Met	Asp	Leu	Asp	Ser	Asp	Glu	Asp	Phe	Ser	Asp		1325	1330	1335	
Phe	Asp	Glu	Lys	Thr	Asp	Asp	Glu	Asp	Phe	Val	Pro	Ser	Asp	Ala		1340	1345	1350	
Ser	Pro	Pro	Lys	Thr	Lys	Thr	Ser	Pro	Lys	Leu	Ser	Asn	Lys	Glu		1355	1360	1365	
Leu	Lys	Pro	Gln	Lys	Ser	Val	Val	Ser	Asp	Leu	Glu	Ala	Asp	Asp		1370	1375	1380	
Val	Lys	Gly	Ser	Val	Pro	Leu	Ser	Ser	Ser	Pro	Pro	Ala	Thr	His		1385	1390	1395	
Phe	Pro	Asp	Glu	Thr	Glu	Ile	Thr	Asn	Pro	Val	Pro	Lys	Lys	Asn		1400	1405	1410	
Val	Thr	Val	Lys	Lys	Thr	Ala	Ala	Lys	Ser	Gln	Ser	Ser	Thr	Ser		1415	1420	1425	
Thr	Thr	Gly	Ala	Lys	Lys	Arg	Ala	Ala	Pro	Lys	Gly	Thr	Lys	Arg		1430	1435	1440	

Asp Pro Ala Leu Asn Ser Gly Val Ser Gln Lys Pro Asp Pro Ala  
 1445 1450 1455  
 Lys Thr Lys Asn Arg Arg Lys Arg Lys Pro Ser Thr Ser Asp Asp  
 1460 1465 1470  
 Ser Asp Ser Asn Phe Glu Lys Ile Val Ser Lys Ala Val Thr Ser  
 1475 1480 1485  
 Lys Lys Ser Lys Gly Glu Ser Asp Asp Phe His Met Asp Phe Asp  
 1490 1495 1500  
 Ser Ala Val Ala Pro Arg Ala Lys Ser Val Arg Ala Lys Lys Pro  
 1505 1510 1515  
 Ile Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe  
 1520 1525 1530

<210> 47

<211> 258

<212> PRT

<213> Homo sapiens

<400> 47  
 Met Leu Pro Leu Cys Leu Val Ala Ala Leu Leu Leu Ala Ala Gly Pro  
 1 5 10 15  
 Gly Pro Ser Leu Gly Asp Glu Ala Ile His Cys Pro Pro Cys Ser Glu  
 20 25 30  
 Glu Lys Leu Ala Arg Cys Arg Pro Pro Val Gly Cys Glu Glu Leu Val  
 35 40 45  
 Arg Glu Pro Gly Cys Gly Cys Cys Ala Thr Cys Ala Leu Gly Leu Gly  
 50 55 60  
 Met Pro Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Arg Cys  
 65 70 75 80  
 Tyr Pro Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly  
 85 90 95  
 Gln Gly Val Cys Met Glu Leu Ala Glu Ile Glu Ala Ile Gln Glu Ser  
 100 105 110  
 Leu Gln Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Asn Ser Phe  
 115 120 125  
 Ser Pro Cys Ser Ala His Asp Arg Arg Cys Leu Gln Lys His Phe Ala  
 130 135 140  
 Lys Ile Arg Asp Arg Ser Thr Ser Gly Gly Lys Met Lys Val Asn Gly  
 145 150 155 160  
 Ala Pro Arg Glu Asp Ala Arg Pro Val Pro Gln Gly Ser Cys Gln Ser  
 165 170 175  
 Glu Leu His Arg Ala Leu Glu Arg Leu Ala Ala Ser Gln Ser Arg Thr  
 180 185 190  
 His Glu Asp Leu Tyr Ile Ile Pro Ile Pro Asn Cys Asp Arg Asn Gly  
 195 200 205  
 Asn Phe His Pro Lys Gln Cys His Pro Ala Leu Asp Gly Gln Arg Gly  
 210 215 220  
 Lys Cys Trp Cys Val Asp Arg Lys Thr Gly Val Lys Leu Pro Gly Gly  
 225 230 235 240  
 Leu Glu Pro Lys Gly Glu Leu Asp Cys His Gln Leu Ala Asp Ser Phe  
 245 250 255

Arg Glu

<210> 48

<211> 378

<212> PRT

<213> Homo sapiens

<400> 48  
 Met Asp Leu Gly Lys Pro Met Lys Ser Val Leu Val Val Ala Leu Leu  
 1 5 10 15  
 Val Ile Phe Gln Val Cys Leu Cys Gln Asp Glu Val Thr Asp Asp Tyr  
 20 25 30  
 Ile Gly Asp Asn Thr Thr Val Asp Tyr Thr Leu Phe Glu Ser Leu Cys  
 35 40 45  
 Ser Lys Lys Asp Val Arg Asn Phe Lys Ala Trp Phe Leu Pro Ile Met  
 50 55 60  
 Tyr Ser Ile Ile Cys Phe Val Gly Leu Leu Gly Asn Gly Leu Val Val  
 65 70 75 80  
 Leu Thr Tyr Ile Tyr Phe Lys Arg Leu Lys Thr Met Thr Asp Thr Tyr  
 85 90 95  
 Leu Leu Asn Leu Ala Val Ala Asp Ile Leu Phe Leu Leu Thr Leu Pro  
 100 105 110  
 Phe Trp Ala Tyr Ser Ala Ala Lys Ser Trp Val Phe Gly Val His Phe  
 115 120 125  
 Cys Lys Leu Ile Phe Ala Ile Tyr Lys Met Ser Phe Phe Ser Gly Met  
 130 135 140  
 Leu Leu Leu Leu Cys Ile Ser Ile Asp Arg Tyr Val Ala Ile Val Gln  
 145 150 155 160  
 Ala Val Ser Ala His Arg His Arg Ala Arg Val Leu Leu Ile Ser Lys  
 165 170 175  
 Leu Ser Cys Val Gly Ile Trp Ile Leu Ala Thr Val Leu Ser Ile Pro  
 180 185 190  
 Glu Leu Leu Tyr Ser Asp Leu Gln Arg Ser Ser Ser Glu Gln Ala Met  
 195 200 205  
 Arg Cys Ser Leu Ile Thr Glu His Val Glu Ala Phe Ile Thr Ile Gln  
 210 215 220  
 Val Ala Gln Met Val Ile Gly Phe Leu Val Pro Leu Leu Ala Met Ser  
 225 230 235 240  
 Phe Cys Tyr Leu Val Ile Ile Arg Thr Leu Leu Gln Ala Arg Asn Phe  
 245 250 255  
 Glu Arg Asn Lys Ala Ile Lys Val Ile Ile Ala Val Val Val Val Phe  
 260 265 270  
 Ile Val Phe Gln Leu Pro Tyr Asn Gly Val Val Leu Ala Gln Thr Val  
 275 280 285  
 Ala Asn Phe Asn Ile Thr Ser Ser Thr Cys Glu Leu Ser Lys Gln Leu  
 290 295 300  
 Asn Ile Ala Tyr Asp Val Thr Tyr Ser Leu Ala Cys Val Arg Cys Cys  
 305 310 315 320  
 Val Asn Pro Phe Leu Tyr Ala Phe Ile Gly Val Lys Phe Arg Asn Asp  
 325 330 335  
 Leu Phe Lys Leu Phe Lys Asp Leu Gly Cys Leu Ser Gln Glu Gln Leu  
 340 345 350  
 Arg Gln Trp Ser Ser Cys Arg His Ile Arg Arg Ser Ser Met Ser Val  
 355 360 365  
 Glu Ala Glu Thr Thr Thr Thr Phe Ser Pro  
 370 375

<210> 49

<211> 411

<212> PRT

<213> Homo sapiens

<400> 49  
 Met Ser Lys Arg Pro Ser Tyr Ala Pro Pro Pro Thr Pro Ala Pro Ala  
 1 5 10 15  
 Thr Gln Met Pro Ser Thr Pro Gly Phe Val Gly Tyr Asn Pro Tyr Ser  
 20 25 30

His Leu Ala Tyr Asn Asn Tyr Arg Leu Gly Gly Asn Pro Ser Thr Asn  
 35 40 45  
 Ser Arg Val Thr Ala Ser Ser Gly Ile Thr Ile Pro Lys Pro Pro Lys  
 50 55 60  
 Pro Pro Asp Lys Pro Leu Met Pro Tyr Met Arg Tyr Ser Arg Lys Val  
 65 70 75 80  
 Trp Asp Gln Val Lys Ala Ser Asn Pro Asp Leu Lys Leu Trp Glu Ile  
 85 90 95  
 Gly Lys Ile Ile Gly Gly Met Trp Arg Asp Leu Thr Asp Glu Glu Lys  
 100 105 110  
 Gln Glu Tyr Leu Asn Glu Tyr Glu Ala Glu Lys Ile Glu Tyr Asn Glu  
 115 120 125  
 Ser Met Lys Ala Tyr His Asn Ser Pro Ala Tyr Leu Ala Tyr Ile Asn  
 130 135 140  
 Ala Lys Ser Arg Ala Glu Ala Ala Leu Glu Glu Glu Ser Arg Gln Arg  
 145 150 155 160  
 Gln Ser Arg Met Glu Lys Gly Glu Pro Tyr Met Ser Ile Gln Pro Ala  
 165 170 175  
 Glu Asp Pro Asp Tyr Asp Asp Gly Phe Ser Met Lys His Thr Ala  
 180 185 190  
 Thr Ala Arg Phe Gln Arg Asn His Arg Leu Ile Ser Glu Ile Leu Ser  
 195 200 205  
 Glu Ser Val Val Pro Asp Val Arg Ser Val Val Thr Thr Ala Arg Met  
 210 215 220  
 Gln Val Leu Lys Arg Gln Val Gln Ser Leu Met Val His Gln Arg Lys  
 225 230 235 240  
 Leu Glu Ala Glu Leu Leu Gln Ile Glu Glu Arg His Gln Glu Lys Lys  
 245 250 255  
 Arg Lys Phe Leu Glu Ser Thr Asp Ser Phe Asn Asn Glu Leu Lys Arg  
 260 265 270  
 Leu Cys Gly Leu Lys Val Glu Val Asp Met Glu Lys Ile Ala Ala Glu  
 275 280 285  
 Ile Ala Gln Ala Glu Glu Gln Ala Arg Lys Arg Gln Glu Glu Arg Glu  
 290 295 300  
 Lys Glu Ala Ala Glu Gln Ala Glu Arg Ser Gln Ser Ser Ile Val Pro  
 305 310 315 320  
 Glu Glu Glu Gln Ala Ala Asn Lys Gly Glu Glu Lys Lys Asp Asp Glu  
 325 330 335  
 Asn Ile Pro Met Glu Thr Glu Glu Thr His Leu Glu Glu Thr Thr Glu  
 340 345 350  
 Ser Gln Gln Asn Gly Glu Glu Gly Thr Ser Thr Pro Glu Asp Lys Glu  
 355 360 365  
 Ser Gly Gln Glu Gly Val Asp Ser Met Ala Glu Glu Gly Thr Ser Asp  
 370 375 380  
 Ser Asn Thr Gly Ser Glu Ser Asn Ser Ala Thr Val Glu Glu Pro Pro  
 385 390 395 400  
 Thr Asp Pro Ile Pro Glu Asp Glu Lys Lys Glu  
 405 410  
 <210> 50  
 <211> 593  
 <212> PRT  
 <213> Homo sapiens  
 <400> 50  
 Met Ser Val Arg Tyr Ser Ser Ser Lys His Tyr Ser Ser Ser Arg Ser  
 1 5 10 15  
 Gly Gly Gly Gly Gly Gly Gly Gly Cys Gly Gly Gly Gly Gly Val Ser  
 20 25 30  
 Ser Leu Arg Ile Ser Ser Ser Lys Gly Ser Leu Gly Gly Gly Phe Ser  
 35 40 45

Ser Gly Gly Phe Ser Gly Gly Ser Phe Ser Arg Gly Ser Ser Gly Gly  
 50 55 60  
 Gly Cys Phe Gly Gly Ser Gly Gly Tyr Gly Gly Leu Gly Gly Phe  
 65 70 75 80  
 Gly Gly Gly Ser Phe His Gly Ser Tyr Gly Ser Ser Ser Phe Gly Gly  
 85 90 95  
 Ser Tyr Gly Gly Ser Phe Gly Gly Gly Asn Phe Gly Gly Gly Ser Phe  
 100 105 110  
 Gly Gly Gly Ser Phe Gly Gly Gly Gly Phe Gly Gly Gly Gly Phe Gly  
 115 120 125  
 Gly Gly Phe Gly Gly Gly Phe Gly Gly Asp Gly Gly Leu Leu Ser Gly  
 130 135 140  
 Asn Glu Lys Val Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr  
 145 150 155 160  
 Leu Asp Lys Val Arg Ala Leu Glu Glu Ser Asn Tyr Glu Leu Glu Gly  
 165 170 175  
 Lys Ile Lys Glu Trp Tyr Glu Lys His Gly Asn Ser His Gln Gly Glu  
 180 185 190  
 Pro Arg Asp Tyr Ser Lys Tyr Tyr Lys Thr Ile Asp Asp Leu Lys Asn  
 195 200 205  
 Gln Ile Leu Asn Leu Thr Thr Asp Asn Ala Asn Ile Leu Leu Gln Ile  
 210 215 220  
 Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn  
 225 230 235 240  
 Glu Val Ala Leu Arg Gln Ser Val Glu Ala Asp Ile Asn Gly Leu Arg  
 245 250 255  
 Arg Val Leu Asp Glu Leu Thr Leu Thr Lys Ala Asp Leu Glu Met Gln  
 260 265 270  
 Ile Glu Ser Leu Thr Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu  
 275 280 285  
 Glu Glu Met Lys Asp Leu Arg Asn Val Ser Thr Gly Asp Val Asn Val  
 290 295 300  
 Glu Met Asn Ala Ala Pro Gly Val Asp Leu Thr Gln Leu Leu Asn Asn  
 305 310 315 320  
 Met Arg Ser Gln Tyr Glu Gln Leu Ala Glu Gln Asn Arg Lys Asp Ala  
 325 330 335  
 Glu Ala Trp Phe Asn Glu Lys Ser Lys Glu Leu Thr Thr Glu Ile Asp  
 340 345 350  
 Asn Asn Ile Glu Gln Ile Ser Ser Tyr Lys Ser Glu Ile Thr Glu Leu  
 355 360 365  
 Arg Arg Asn Val Gln Ala Leu Glu Ile Glu Leu Gln Ser Gln Leu Ala  
 370 375 380  
 Leu Lys Gln Ser Leu Glu Ala Ser Leu Ala Glu Thr Glu Gly Arg Tyr  
 385 390 395 400  
 Cys Val Gln Leu Ser Gln Ile His Ala Gln Ile Ser Ala Leu Glu Glu  
 405 410 415  
 Gln Leu Gln Gln Ile Arg Ala Glu Thr Glu Cys Gln Asn Thr Glu Tyr  
 420 425 430  
 Gln Gln Leu Leu Asp Ile Lys Ile Arg Leu Glu Asn Glu Ile Gln Thr  
 435 440 445  
 Tyr Arg Ser Leu Leu Glu Gly Glu Gly Ser Ser Gly Gly Gly Gly Arg  
 450 455 460  
 Gly Gly Gly Ser Phe Gly Gly Gly Tyr Gly Gly Gly Ser Ser Gly Gly  
 465 470 475 480  
 Gly Ser Ser Gly Gly Tyr Gly Gly Gly His Gly Gly Ser Ser Gly  
 485 490 495  
 Gly Gly Tyr Gly Gly Gly Ser Ser Gly Gly Gly Ser Ser Gly Gly Gly  
 500 505 510  
 Tyr Gly Gly Gly Ser Ser Ser Gly Gly His Gly Gly Gly Ser Ser Ser  
 515 520 525  
 Gly Gly His Gly Gly Ser Ser Ser Gly Gly Tyr Gly Gly Gly Ser Ser  
 530 535 540  
 Gly Gly Gly Gly Gly Gly Tyr Gly Gly Gly Ser Ser Gly Gly Gly Ser  
 545 550 555 560  
 Ser Ser Gly Gly Gly Tyr Gly Gly Gly Ser Ser Gly Gly His Lys  
 565 570 575

Ser Ser Ser Ser Gly Ser Val Gly Glu Ser Ser Ser Lys Gly Pro Arg  
 580 585 590  
 Tyr

<210> 51

<211> 494

<212> PRT

<213> Homo sapiens

<400> 51

Met Asp Leu Ser Asn Asn Thr Met Ser Leu Ser Val Arg Thr Pro Gly  
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 Met Ser Ala Ser Ser Val Gly Ser Gly Tyr Gly Gly Ser Ala Phe Gly  
 35 40 45  
 Phe Gly Ala Ser Cys Gly Gly Gly Phe Ser Ala Ala Ser Met Phe Gly  
 50 55 60  
 Ser Ser Ser Gly Phe Gly Gly Gly Ser Gly Ser Ser Met Ala Gly Gly  
 65 70 75 80  
 Leu Gly Ala Gly Tyr Gly Arg Ala Leu Gly Gly Gly Ser Phe Gly Gly  
 85 90 95  
 Leu Gly Met Gly Phe Gly Gly Ser Pro Gly Gly Gly Ser Leu Gly Ile  
 100 105 110  
 Leu Ser Gly Asn Asp Gly Gly Leu Leu Ser Gly Ser Glu Lys Glu Thr  
 115 120 125  
 Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg  
 130 135 140  
 Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Asn Lys Ile Arg Glu Trp  
 145 150 155 160  
 Tyr Glu Thr Arg Gly Thr Gly Thr Ala Asp Ala Ser Gln Ser Asp Tyr  
 165 170 175  
 Ser Lys Tyr Tyr Pro Leu Ile Glu Asp Leu Arg Asn Lys Ile Ile Ser  
 180 185 190  
 Ala Ser Ile Gly Asn Ala Gln Leu Leu Leu Gln Ile Asp Asn Ala Arg  
 195 200 205  
 Leu Ala Ala Glu Asp Phe Arg Met Lys Tyr Glu Asn Glu Leu Ala Leu  
 210 215 220  
 Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp  
 225 230 235 240  
 Glu Leu Thr Leu Thr Arg Thr Asp Leu Glu Met Gln Ile Glu Ser Leu  
 245 250 255  
 Asn Glu Glu Leu Ala Tyr Met Lys Lys Asn His Glu Asp Glu Leu Gln  
 260 265 270  
 Ser Phe Arg Val Gly Gly Pro Gly Glu Val Ser Val Glu Met Asp Ala  
 275 280 285  
 Ala Pro Gly Val Asp Leu Thr Arg Leu Leu Asn Asp Met Arg Ala Gln  
 290 295 300  
 Tyr Glu Thr Ile Ala Glu Gln Asn Arg Lys Asp Ala Glu Ala Trp Phe  
 305 310 315 320  
 Ile Glu Lys Ser Gly Glu Leu Arg Lys Glu Ile Ser Thr Asn Thr Glu  
 325 330 335  
 Gln Leu Gln Ser Ser Lys Ser Glu Val Thr Asp Leu Arg Arg Ala Phe  
 340 345 350  
 Gln Asn Leu Glu Ile Glu Leu Gln Ser Gln Leu Ala Met Lys Lys Ser  
 355 360 365  
 Leu Glu Asp Ser Leu Ala Glu Ala Glu Gly Asp Tyr Cys Ala Gln Leu  
 370 375 380  
 Ser Gln Val Gln Gln Leu Ile Ser Asn Leu Glu Ala Gln Leu Leu Gln  
 385 390 395 400



Val Arg Ala Asp Ala Glu Arg Gln Asn Val Asp His Gln Arg Leu Leu  
 405 410 415  
 Asn Val Lys Ala Arg Leu Glu Leu Glu Ile Glu Thr Tyr Arg Arg Leu  
 420 425 430  
 Leu Asp Gly Glu Ala Gln Gly Asp Gly Leu Glu Glu Ser Leu Phe Val  
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 Thr Asp Ser Lys Ser Gln Ala Gln Ser Thr Asp Ser Ser Lys Asp Pro  
 450 455 460  
 Thr Lys Thr Arg Lys Ile Lys Thr Val Val Gln Glu Met Val Asn Gly  
 465 470 475 480  
 Glu Val Val Ser Ser Gln Val Gln Glu Ile Glu Glu Leu Met  
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&lt;210&gt; 52

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 52

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 His Val Glu Arg Asp Asn Ala Glu Leu Glu Asn Leu Ile Arg Glu Arg  
 35 40 45  
 Ser Gln Gln Gln Glu Pro Leu Leu Cys Pro Ser Tyr Gln Ser Tyr Phe  
 50 55 60  
 Lys Thr Ile Glu Glu Leu Gln Gln Lys Ile Leu Cys Ser Lys Ser Glu  
 65 70 75 80  
 Asn Ala Arg Leu Val Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp  
 85 90 95  
 Asp Phe Arg Thr Lys Tyr Gln Thr Glu Gln Ser Leu Arg Gln Leu Val  
 100 105 110  
 Glu Ser Asp Ile Asn Ser Leu Arg Arg Ile Leu Asp Glu Leu Thr Leu  
 115 120 125  
 Cys Arg Ser Asp Leu Glu Ala Gln Met Glu Ser Leu Lys Glu Glu Leu  
 130 135 140  
 Leu Ser Leu Lys Gln Asn His Glu Gln Glu Val Asn Thr Leu Arg Cys  
 145 150 155 160  
 Gln Leu Gly Asp Arg Leu Asn Val Glu Val Asp Ala Ala Pro Ala Val  
 165 170 175  
 Asp Leu Asn Gln Val Leu Asn Glu Thr Arg Asn Gln Tyr Glu Ala Leu  
 180 185 190  
 Val Glu Thr Asn Arg Arg Glu Val Glu Gln Trp Phe Ala Thr Gln Thr  
 195 200 205  
 Glu Glu Leu Asn Lys Gln Val Val Ser Ser Ser Glu Gln Leu Gln Ser  
 210 215 220  
 Tyr Gln Ala Glu Ile Ile Glu Leu Arg Arg Thr Val Asn Ala Leu Glu  
 225 230 235 240  
 Ile Glu Leu Gln Ala Gln His Asn Leu Arg Tyr Ser Leu Glu Asn Thr  
 245 250 255  
 Leu Thr Glu Ser Glu Ala Arg Tyr Ser Ser Gln Leu Ser Gln Val Gln  
 260 265 270  
 Ser Leu Ile Thr Asn Val Glu Ser Gln Leu Ala Glu Ile Arg Ser Asp  
 275 280 285  
 Leu Glu Arg Gln Asn Gln Glu Tyr Gln Val Leu Leu Asp Val Arg Ala  
 290 295 300  
 Arg Leu Glu Cys Glu Ile Asn Thr Tyr Arg Ser Leu Leu Glu Ser Glu  
 305 310 315 320  
 Asp Cys Lys Leu Pro Ser Asn Pro Cys Ala Thr Thr Asn Ala Cys Glu  
 325 330 335

Lys Pro Ile Gly Ser Cys Val Thr Asn Pro Cys Gly Pro Arg Ser Arg  
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                   355                  360

<210> 53

<211> 3282

<212> DNA

<213> Homo sapiens

<400> 53

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&lt;210&gt; 54

&lt;211&gt; 2227

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

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&lt;210&gt; 55

&lt;211&gt; 4283

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 55

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&lt;211&gt; 6140

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 56

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&lt;211&gt; 2098

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

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&lt;210&gt; 58

&lt;211&gt; 2947

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 58

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 1174

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 61

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&lt;211&gt; 3167

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

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&lt;223&gt; n=a, c, g or t

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&lt;223&gt; n=a, c, g or t

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&lt;213&gt; Homo sapiens

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&lt;211&gt; 1841

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 69

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&lt;211&gt; 748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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&lt;211&gt; 1646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 73

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 74

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&lt;211&gt; 4005

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 75

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tgcatggggc	cccctggccg	actccagcaa	gccccacagg	tggaggccaa	agccacctgc	360
ttcctgccgt	cccctgggtga	gaaggccttg	gggaccccag	aggaccttga	ctcctacatt	420
gacttctcac	tggagagcct	caatcagatg	atcctggaac	tggaccccac	cttccagctg	480
cttccccag	ggactggggg	ctcccaggct	gagctggccc	agagcaccat	gtcaatgaga	540
aagaaggagg	aatctgaagc	cttggacata	aagtacatcg	aggtgacctc	cgccagatca	600
aggtgccacg	attggcccca	gactgctcc	agcccctctg	tcaccccgcc	cttcggctcc	660
cctcgcatg	gtggcctcct	cctttccaga	gacgtccccc	gagagacacg	aagcagcagt	720
gagagcctca	tcttctcttg	gaaccagggc	agggggcacc	agcgccctct	gccccctca	780
gagggtctct	cccctcgacc	cccaaattcc	cccagcatct	caatcccttg	catggggagc	840
aaggcctcga	gccccatgg	tttgggctcc	ccgctgggtg	cttctccaag	actggagaag	900
cggctgggag	gcctggcccc	acagcggggc	agcaggatct	ctgtgctgtc	agccagccca	960
gtgtctgatg	tcagctatat	gtttggaagc	agccagtccc	tcctgcactc	cagcaactcc	1020
agccatcagt	catcttccag	atccttgga	agtccagcca	actcttccct	cagcctccac	1080
agccttggct	cagtgtccct	gtgtacaaga	cccagtgact	tccaggctcc	cagaaacccc	1140
accctaacca	tgggccaacc	cagaacaccc	cactctccac	cactggccaa	agaacatgcc	1200
agcatctgcc	ccccatccat	caccaactcc	atggtggaca	taccatttgt	tcagatcaac	1260
ggctgcccag	aaccagggtc	ttctccaccc	cagcggaccc	caggacacca	gaactccgtt	1320
caacctggag	ctgcttctcc	cagcaacccc	tgtccagcca	ccaggagcaa	cagccagacc	1380
ctgtcagatg	ccccctttac	cacatgcccc	gagggtcccc	ccaggggacat	gcagcccacc	1440
atgaagtctg	tgatggacac	atctaaatac	tggtttaagc	caaacatcac	ccgagagcaa	1500
gcaatcgagc	ccttgaggaa	ggaggagcca	ggggcttttg	tcataaggga	cagctcttca	1560
taccgaggct	gcttcggcct	ggccctgaag	gtgcaggagg	ttcccgctgc	tgctcagaat	1620
cgaccagggtg	aggacagcaa	tgacctcatc	cgacacttcc	tcacgagtc	gtctgccaaa	1680
ggagtgcate	tcaaaggagc	agatgaggag	ccctactttg	ggagcctctc	tgccctctgtg	1740
tgccagcatt	ccatcatggc	cctggccctg	ccctgcaaac	tcacccatccc	acagagagaa	1800
ctgggagggtg	cagatggggc	ctcggactct	acagacagcc	cagcctcctg	ccagaagaaa	1860
tctgcgggtg	gccacaccct	gtacctgagc	tcagttagcg	tggagaccct	gactggagcc	1920
ctggcctgtg	agaaagccat	ctccaccacc	tttgaggagg	acatccctcc	cacgcgcacc	1980
gtggctccact	tcgaagtcac	agagcagggc	atcactctga	ctgatgtcca	gaggaagggtg	2040
tttttccggc	gccattaccc	actcaccacc	ctccgcttct	gtgggtatgga	ccctgagcaa	2100
cggagtggc	agaagtactg	caaaccctcc	tggatctttg	ggtttgtggc	caagagccag	2160
acagagcctc	aggagaacgt	atgccacctc	tttgcgaggt	atgacatggg	ccagccagcc	2220
tcgcaggtea	tcggcctggg	gactgctctg	ctgcaggacg	cagaaaggat	gtaggggaga	2280
gactgcctgt	gcacctaac	aacacctcca	ggggctcgct	aaggagcccc	cctccacccc	2340
ctgaatgggt	gtggcttgtg	gccatattga	cagaccaatc	tatgggacta	gggggattgg	2400
catcaagtgtg	acacccttga	acctgctatg	gccttcagca	gtcaccatca	tccagacccc	2460
ccgggcctca	gtttctctca	tcataagaaga	agaccaatag	acaagatcag	ctgttctctag	2520
atgctgggtg	gcatttgaac	atgctcctcc	atgattctga	agcatgcaca	cctctgaaga	2580
ccctgcatg	aaaataacct	ccaaggaccc	tctgacccca	tcgacctggg	ccctgcccac	2640
acaacagtct	gagcaagaga	cctgcagccc	ctgtttctgtg	gcagacagca	gggtgcctggc	2700
ggtagccac	ggggctcctg	gcttgcagct	ggtagtggtc	aagaactgac	tacaaaacag	2760
gaatggatag	actctatctt	cttccatctc	tgcttctctg	ttccttttcc	cactttcttg	2820
gtggcttttt	gggtccaccc	agccaggatg	ctgcaggcca	agctgggtgt	gggtatttagg	2880
cgagctcagc	agggggaact	tgtcccatg	gtcagaggag	accagctgtg	cctgcacccc	2940
cttgcatagt	agtatcaccc	catcttttct	ttccacttgg	tttttatttt	tatttttttt	3000
gagacagagt	ctcactgtca	cccaggctga	actgcagtgg	tgtgatctag	gtcactgca	3060
acctccacct	cccaggttca	agcaattatc	ctgcctcagg	ctcccagta	gctgggatta	3120
caggcatgtg	caactcaccc	agctaatttt	gtatttttag	tagagacagg	gtttcaccat	3180
gttggccagg	ctggtcttga	actcctgacc	gcaggtaatc	cacctgtctc	ggcctcccaa	3240
agtgcctggga	ttacaggcgc	aagccaccca	gccagcttc	tttccattcc	ttgataggcg	3300

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agtattccaa agctggtatc gtagctgccc taatgttgca tattaggcgg cgggggcaga 3360
gataagggcc atctctctgt gattctgcct cagctcctgt cttgctgagc cctcccccaa 3420
cccacgctcc aacacacaca cacacacaca cacacacaca cacacacaca cacacacaca 3480
cacgccccctc tactgctatg tggcttcaac cagcctcaca gccacacggg ggaagcagag 3540
agtcaagaat gcaaagaggc cgcttcccta agaggcttgg aggagctggg ctctatccca 3600
caccaccccc caccaccccc ccaccagcc tccagaagct ggaaccattt ctcccgagg 3660
cctgagttcc taaggaaacc accctaccgg ggtggaaggg agggtcaggg aagaaaccca 3720
ctcttgctct acgaggagca agtgcctgcc cctcccagc agccagccct gccaaagttg 3780
cattatcttt ggccaaggct gggcctgacg gttatgattt cagccctggg cctgcaggag 3840
aggctgagat cagccccacc agccagtggg cgagcactgc cccgccgcca aagctgcag 3900
aatgtgagat gaggttctca aggtcacagg cccagtcgcc agcctggggg ctggcagagg 3960
ccccatata ctctgctaca gctcctatca tgaaaaataa aatgt 4005

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&lt;210&gt; 76

&lt;211&gt; 1093

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 76

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Met Lys Glu Met Val Gly Gly Cys Cys Val Cys Ser Asp Glu Arg Gly
1      5      10      15
Trp Ala Glu Asn Pro Leu Val Tyr Cys Asp Gly His Ala Cys Ser Val
20     25     30
Ala Val His Gln Ala Cys Tyr Gly Ile Val Gln Val Pro Thr Gly Pro
35     40     45
Trp Phe Cys Arg Lys Cys Glu Ser Gln Glu Arg Ala Ala Arg Val Arg
50     55     60
Cys Glu Leu Cys Pro His Lys Asp Gly Ala Leu Lys Arg Thr Asp Asn
65     70     75     80
Gly Gly Trp Ala His Val Val Cys Ala Leu Tyr Ile Pro Glu Val Gln
85     90     95
Phe Ala Asn Val Leu Thr Met Glu Pro Ile Val Leu Gln Tyr Val Pro
100    105    110
His Asp Arg Phe Asn Lys Thr Cys Tyr Ile Cys Glu Glu Thr Gly Arg
115    120    125
Glu Ser Lys Ala Ala Ser Gly Ala Cys Met Thr Cys Asn Arg His Gly
130    135    140
Cys Arg Gln Ala Phe His Val Thr Cys Ala Gln Met Ala Gly Leu Leu
145    150    155    160
Cys Glu Glu Glu Val Leu Glu Val Asp Asn Val Lys Tyr Cys Gly Tyr
165    170    175
Cys Lys Tyr His Phe Ser Lys Met Lys Thr Ser Arg His Ser Ser Gly
180    185    190
Gly Gly Gly Gly Gly Ala Gly Gly Gly Gly Ser Met Gly Gly Gly
195    200    205
Gly Ser Gly Phe Ile Ser Gly Arg Arg Ser Arg Ser Ala Ser Pro Ser
210    215    220
Thr Gln Gln Glu Lys His Pro Thr His His Glu Arg Gly Gln Lys Lys
225    230    235    240
Ser Arg Lys Asp Lys Glu Arg Leu Lys Gln Lys His Lys Lys Arg Pro
245    250    255
Glu Ser Pro Pro Ser Ile Leu Thr Pro Pro Val Val Pro Thr Ala Asp
260    265    270
Lys Val Ser Ser Ser Ala Ser Ser Ser Ser His His Glu Ala Ser Thr
275    280    285
Gln Glu Thr Ser Glu Ser Ser Arg Glu Ser Lys Gly Lys Lys Ser Ser
290    295    300
Ser His Ser Leu Ser His Lys Gly Lys Lys Leu Ser Ser Gly Lys Gly
305    310    315    320
Val Ser Ser Phe Thr Ser Ala Ser Ser Ser Ser Ser Ser Ser Ser
325    330    335

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Ser Ser Gly Gly Pro Phe Gln Pro Ala Val Ser Ser Leu Gln Ser Ser  
 340 345 350  
 Pro Asp Phe Ser Ala Phe Pro Lys Leu Glu Gln Pro Glu Glu Asp Lys  
 355 360 365  
 Tyr Ser Lys Pro Thr Ala Pro Ala Pro Ser Ala Pro Pro Ser Pro Ser  
 370 375 380  
 Ala Pro Glu Pro Pro Lys Ala Asp Leu Phe Glu Gln Lys Val Val Phe  
 385 390 395 400  
 Ser Gly Phe Gly Pro Ile Met Arg Phe Ser Thr Thr Thr Ser Ser Ser  
 405 410 415  
 Gly Arg Ala Arg Ala Pro Ser Pro Gly Asp Tyr Lys Ser Pro His Val  
 420 425 430  
 Thr Gly Ser Gly Ala Ser Ala Gly Thr His Lys Arg Met Pro Ala Leu  
 435 440 445  
 Ser Ala Thr Pro Val Pro Ala Asp Glu Thr Pro Glu Thr Gly Leu Lys  
 450 455 460  
 Glu Lys Lys His Lys Ala Ser Lys Arg Ser Arg His Gly Pro Gly Arg  
 465 470 475 480  
 Pro Lys Gly Ser Arg Asn Lys Glu Gly Thr Gly Gly Pro Ala Ala Pro  
 485 490 495  
 Ser Leu Pro Ser Ala Gln Leu Ala Gly Phe Thr Ala Thr Ala Ala Ser  
 500 505 510  
 Pro Phe Ser Gly Gly Ser Leu Val Ser Ser Gly Leu Gly Gly Leu Ser  
 515 520 525  
 Ser Arg Thr Phe Gly Pro Ser Gly Ser Leu Pro Ser Leu Ser Leu Glu  
 530 535 540  
 Ser Pro Leu Leu Gly Ala Gly Ile Tyr Thr Ser Asn Lys Asp Pro Ile  
 545 550 555 560  
 Ser His Ser Gly Gly Met Leu Arg Ala Val Cys Ser Thr Pro Leu Ser  
 565 570 575  
 Ser Ser Leu Leu Gly Pro Pro Gly Thr Ser Ala Leu Pro Arg Leu Ser  
 580 585 590  
 Arg Ser Pro Phe Thr Ser Thr Leu Pro Ser Ser Ser Ala Ser Ile Ser  
 595 600 605  
 Thr Thr Gln Val Phe Ser Leu Ala Gly Ser Thr Phe Ser Leu Pro Ser  
 610 615 620  
 Thr His Ile Phe Gly Thr Pro Met Gly Ala Val Asn Pro Leu Leu Ser  
 625 630 635 640  
 Gln Ala Glu Ser Ser His Thr Glu Pro Asp Leu Glu Asp Cys Ser Phe  
 645 650 655  
 Arg Cys Arg Gly Thr Ser Pro Gln Glu Ser Leu Ser Ser Met Ser Pro  
 660 665 670  
 Ile Ser Ser Leu Pro Ala Leu Phe Asp Gln Thr Ala Ser Ala Pro Cys  
 675 680 685  
 Gly Gly Gly Gln Leu Asp Pro Ala Ala Pro Gly Thr Thr Asn Met Glu  
 690 695 700  
 Gln Leu Leu Glu Lys Gln Gly Asp Gly Glu Ala Gly Val Asn Ile Val  
 705 710 715 720  
 Glu Met Leu Lys Ala Leu His Ala Leu Gln Lys Glu Asn Gln Arg Leu  
 725 730 735  
 Gln Glu Gln Ile Leu Ser Leu Thr Ala Lys Lys Glu Arg Leu Gln Ile  
 740 745 750  
 Leu Asn Val Gln Leu Ser Val Pro Phe Pro Ala Leu Pro Ala Ala Leu  
 755 760 765  
 Pro Ala Ala Asn Gly Pro Val Pro Gly Pro Tyr Gly Leu Pro Pro Gln  
 770 775 780  
 Ala Gly Ser Ser Asp Ser Leu Ser Thr Ser Lys Ser Pro Pro Gly Lys  
 785 790 795 800  
 Ser Ser Leu Gly Leu Asp Asn Ser Leu Ser Thr Ser Ser Glu Asp Pro  
 805 810 815  
 His Ser Gly Cys Pro Ser Arg Ser Ser Ser Ser Leu Ser Phe His Ser  
 820 825 830  
 Thr Pro Pro Pro Leu Pro Leu Leu Gln Gln Ser Pro Ala Thr Leu Pro  
 835 840 845  
 Leu Ala Leu Pro Gly Ala Pro Ala Pro Leu Pro Pro Gln Pro Gln Asn  
 850 855 860

Gly Leu Gly Arg Ala Pro Gly Ala Ala Gly Leu Gly Ala Met Pro Met  
 865 870 875 880  
 Ala Glu Gly Leu Leu Gly Gly Leu Ala Gly Ser Gly Gly Leu Pro Leu  
 885 890 895  
 Asn Gly Leu Leu Gly Gly Leu Asn Gly Ala Ala Ala Pro Asn Pro Ala  
 900 905 910  
 Ser Leu Ser Gln Ala Gly Gly Ala Pro Thr Leu Gln Leu Pro Gly Cys  
 915 920 925  
 Leu Asn Ser Leu Thr Glu Gln Gln Arg His Leu Leu Gln Gln Gln Glu  
 930 935 940  
 Gln Gln Leu Gln Gln Leu Gln Gln Leu Leu Ala Ser Pro Gln Leu Thr  
 945 950 955 960  
 Pro Glu His Gln Thr Val Val Tyr Gln Met Ile Gln Gln Ile Gln Gln  
 965 970 975  
 Lys Arg Glu Leu Gln Arg Leu Gln Met Ala Gly Gly Ser Gln Leu Pro  
 980 985 990  
 Met Ala Ser Leu Leu Ala Gly Ser Ser Thr Pro Leu Leu Ser Ala Gly  
 995 1000 1005  
 Thr Pro Gly Leu Leu Pro Thr Ala Ser Ala Pro Pro Leu Leu Pro  
 1010 1015 1020  
 Ala Gly Ala Leu Val Ala Pro Ser Leu Gly Asn Asn Thr Ser Leu  
 1025 1030 1035  
 Met Ala Ala Ala Ala Ala Ala Ala Ala Val Ala Ala Ala Gly Gly  
 1040 1045 1050  
 Pro Pro Val Leu Thr Ala Gln Thr Asn Pro Phe Leu Ser Leu Ser  
 1055 1060 1065  
 Gly Ala Glu Gly Ser Gly Gly Gly Pro Lys Gly Gly Thr Ala Asp  
 1070 1075 1080  
 Lys Gly Ala Ser Ala Asn Gln Glu Lys Gly  
 1085 1090

&lt;210&gt; 77

&lt;211&gt; 344

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 77

Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu  
 1 5 10 15  
 Met Cys Ala Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Val  
 20 25 30  
 Glu Cys Leu His Ser Phe Cys Lys Thr Cys Ile Val Arg Tyr Leu Glu  
 35 40 45  
 Thr Asn Lys Tyr Cys Pro Met Cys Asp Val Gln Val His Lys Thr Arg  
 50 55 60  
 Pro Leu Leu Ser Ile Arg Ser Asp Lys Thr Leu Gln Asp Ile Val Tyr  
 65 70 75 80  
 Lys Leu Val Pro Gly Leu Phe Lys Asp Glu Met Lys Arg Arg Arg Asp  
 85 90 95  
 Phe Tyr Ala Ala Tyr Pro Leu Thr Glu Val Pro Asn Gly Ser Asn Glu  
 100 105 110  
 Asp Arg Gly Glu Val Leu Glu Gln Glu Lys Gly Ala Leu Ser Asp Asp  
 115 120 125  
 Glu Ile Val Ser Leu Ser Ile Glu Phe Tyr Glu Gly Ala Arg Asp Arg  
 130 135 140  
 Asp Glu Lys Lys Gly Pro Leu Glu Asn Gly Asp Gly Asp Lys Glu Lys  
 145 150 155 160  
 Thr Gly Val Arg Phe Leu Arg Cys Pro Ala Ala Met Thr Val Met His  
 165 170 175  
 Leu Ala Lys Phe Leu Arg Asn Lys Met Asp Val Pro Ser Lys Tyr Lys  
 180 185 190

Val	Glu	Val	Leu	Tyr	Glu	Asp	Glu	Pro	Leu	Lys	Glu	Tyr	Tyr	Thr	Leu
		195					200					205			
Met	Asp	Ile	Ala	Tyr	Ile	Tyr	Pro	Trp	Arg	Arg	Asn	Gly	Pro	Leu	Pro
	210					215					220				
Leu	Lys	Tyr	Arg	Val	Gln	Pro	Ala	Cys	Lys	Arg	Leu	Thr	Leu	Ala	Thr
225					230					235					240
Val	Pro	Thr	Pro	Ser	Glu	Gly	Thr	Asn	Thr	Ser	Gly	Ala	Ser	Glu	Cys
				245						250				255	
Glu	Ser	Val	Ser	Asp	Lys	Ala	Pro	Ser	Pro	Ala	Thr	Leu	Pro	Ala	Thr
			260					265					270		
Ser	Ser	Ser	Leu	Pro	Ser	Pro	Ala	Thr	Pro	Ser	His	Gly	Ser	Pro	Ser
		275					280					285			
Ser	His	Gly	Pro	Pro	Ala	Thr	His	Pro	Thr	Ser	Pro	Thr	Pro	Pro	Ser
	290						295				300				
Thr	Ala	Ser	Gly	Ala	Thr	Thr	Ala	Ala	Asn	Gly	Gly	Ser	Leu	Asn	Cys
305					310					315					320
Leu	Gln	Thr	Pro	Ser	Ser	Thr	Ser	Arg	Gly	Arg	Lys	Met	Thr	Val	Asn
				325					330					335	
Gly	Ala	Pro	Val	Pro	Pro	Leu	Thr								
			340												

&lt;210&gt; 78

&lt;211&gt; 416

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 78

Met	Ser	Ser	Asn	Cys	Thr	Ser	Thr	Thr	Ala	Val	Ala	Val	Ala	Pro	Leu
1				5					10					15	
Ser	Ala	Ser	Lys	Thr	Lys	Thr	Lys	Lys	Lys	His	Phe	Val	Cys	Gln	Lys
			20					25					30		
Val	Lys	Leu	Phe	Arg	Ala	Ser	Glu	Pro	Ile	Leu	Ser	Val	Leu	Met	Trp
		35					40					45			
Gly	Val	Asn	His	Thr	Ile	Asn	Glu	Leu	Ser	Asn	Val	Pro	Val	Pro	Val
	50					55					60				
Met	Leu	Met	Pro	Asp	Asp	Phe	Lys	Ala	Tyr	Ser	Lys	Ile	Lys	Val	Asp
65					70					75					80
Asn	His	Leu	Phe	Asn	Lys	Glu	Asn	Leu	Pro	Ser	Arg	Phe	Lys	Phe	Lys
				85					90					95	
Glu	Tyr	Cys	Pro	Met	Val	Phe	Arg	Asn	Leu	Arg	Glu	Arg	Phe	Gly	Ile
			100					105					110		
Asp	Asp	Gln	Asp	Tyr	Gln	Asn	Ser	Val	Thr	Arg	Ser	Ala	Pro	Ile	Asn
		115					120					125			
Ser	Asp	Ser	Gln	Gly	Arg	Cys	Gly	Thr	Arg	Phe	Leu	Thr	Thr	Tyr	Asp
	130					135					140				
Arg	Arg	Phe	Val	Ile	Lys	Thr	Val	Ser	Ser	Glu	Asp	Val	Ala	Glu	Met
145					150					155					160
His	Asn	Ile	Leu	Lys	Lys	Tyr	His	Gln	Phe	Ile	Val	Glu	Cys	His	Gly
				165					170					175	
Asn	Thr	Leu	Leu	Pro	Gln	Phe	Leu	Gly	Met	Tyr	Arg	Leu	Thr	Val	Asp
			180					185					190		
Gly	Val	Glu	Thr	Tyr	Met	Val	Val	Thr	Arg	Asn	Val	Phe	Ser	His	Arg
		195					200					205			
Leu	Thr	Val	His	Arg	Lys	Tyr	Asp	Leu	Lys	Gly	Ser	Thr	Val	Ala	Arg
	210					215					220				
Glu	Ala	Ser	Asp	Lys	Glu	Lys	Ala	Lys	Asp	Leu	Pro	Thr	Phe	Lys	Asp
225					230					235					240
Asn	Asp	Phe	Leu	Asn	Glu	Gly	Gln	Lys	Leu	His	Val	Gly	Glu	Glu	Ser
				245					250					255	
Lys	Lys	Asn	Phe	Leu	Glu	Lys	Leu	Lys	Arg	Asp	Val	Glu	Phe	Leu	Ala
			260					265					270		



Gln	Leu	Lys	Ile	Met	Asp	Tyr	Ser	Leu	Leu	Val	Gly	Ile	His	Asp	Val
		275					280					285			
Asp	Arg	Ala	Glu	Gln	Glu	Glu	Met	Glu	Val	Glu	Glu	Arg	Ala	Glu	Asp
	290					295					300				
Glu	Glu	Cys	Glu	Asn	Asp	Gly	Val	Gly	Gly	Asn	Leu	Leu	Cys	Ser	Tyr
305					310					315					320
Gly	Thr	Pro	Pro	Asp	Ser	Pro	Gly	Asn	Leu	Ser	Phe	Pro	Arg	Phe	
				325					330					335	
Phe	Gly	Pro	Gly	Glu	Phe	Asp	Pro	Ser	Val	Asp	Val	Tyr	Ala	Met	Lys
			340					345					350		
Ser	His	Glu	Ser	Ser	Pro	Lys	Lys	Glu	Val	Tyr	Phe	Met	Ala	Ile	Ile
		355				360						365			
Asp	Ile	Leu	Thr	Pro	Tyr	Asp	Thr	Lys	Lys	Lys	Ala	Ala	His	Ala	Ala
	370					375					380				
Lys	Thr	Val	Lys	His	Gly	Ala	Gly	Ala	Glu	Ile	Ser	Thr	Val	Asn	Pro
385					390					395					400
Glu	Gln	Tyr	Ser	Lys	Arg	Phe	Asn	Glu	Phe	Met	Ser	Asn	Ile	Leu	Thr
				405					410					415	

&lt;210&gt; 79

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 79

Met	Arg	Gly	Glu	Leu	Trp	Leu	Leu	Val	Leu	Val	Leu	Arg	Glu	Ala	Ala
1				5					10					15	
Arg	Ala	Leu	Ser	Pro	Gln	Pro	Gly	Ala	Gly	His	Asp	Glu	Gly	Pro	Gly
			20					25					30		
Ser	Gly	Trp	Ala	Ala	Lys	Gly	Thr	Val	Arg	Gly	Trp	Asn	Arg	Arg	Ala
		35					40					45			
Arg	Glu	Ser	Pro	Gly	His	Val	Ser	Glu	Pro	Asp	Arg	Thr	Gln	Leu	Ser
	50					55					60				
Gln	Asp	Leu	Gly	Gly	Gly	Thr	Leu	Ala	Met	Asp	Thr	Leu	Pro	Asp	Asn
65					70					75					80
Arg	Thr	Arg	Val	Val	Glu	Asp	Asn	His	Ser	Tyr	Tyr	Val	Ser	Arg	Leu
			85					90						95	
Tyr	Gly	Pro	Ser	Glu	Pro	His	Ser	Arg	Glu	Leu	Trp	Val	Asp	Val	Ala
			100					105					110		
Glu	Ala	Asn	Arg	Ser	Gln	Val	Lys	Ile	His	Thr	Ile	Leu	Ser	Asn	Thr
		115					120					125			
His	Arg	Gln	Ala	Ser	Arg	Val	Val	Leu	Ser	Phe	Asp	Phe	Pro	Phe	Tyr
	130					135					140				
Gly	His	Pro	Leu	Arg	Gln	Ile	Thr	Ile	Ala	Thr	Gly	Gly	Phe	Ile	Phe
145					150					155					160
Met	Gly	Asp	Val	Ile	His	Arg	Met	Leu	Thr	Ala	Thr	Gln	Tyr	Val	Ala
				165					170					175	
Pro	Leu	Met	Ala	Asn	Phe	Asn	Pro	Gly	Tyr	Ser	Asp	Asn	Ser	Thr	Val
		180						185					190		
Val	Tyr	Phe	Asp	Asn	Gly	Thr	Val	Phe	Val	Val	Gln	Trp	Asp	His	Val
		195					200					205			
Tyr	Leu	Gln	Gly	Trp	Glu	Asp	Lys	Gly	Ser	Phe	Thr	Phe	Gln	Ala	Ala
	210					215					220				
Leu	His	His	Asp	Gly	Arg	Ile	Val	Phe	Ala	Tyr	Lys	Glu	Ile	Pro	Met
225					230					235					240
Ser	Val	Pro	Glu	Ile	Ser	Ser	Ser	Gln	His	Pro	Val	Lys	Thr	Gly	Leu
				245					250					255	
Ser	Asp	Ala	Phe	Met	Ile	Leu	Asn	Pro	Ser	Pro	Asp	Val	Pro	Glu	Ser
			260					265					270		
Arg	Arg	Arg	Ser	Ile	Phe	Glu	Tyr	His	Arg	Ile	Glu	Leu	Asp	Pro	Ser
		275					280					285			

Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys  
 290 295 300  
 Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe  
 305 310 315 320  
 Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp  
 325 330 335  
 Arg Tyr Arg Gln Glu Trp Met Asp Tyr Gly Cys Ala Gln Glu Ala Glu  
 340 345 350  
 Gly Arg Met Cys Glu Asp Phe Gln Asp Glu Asp His Asp Ser Ala Ser  
 355 360 365  
 Pro Asp Thr Ser Phe Ser Pro Tyr Asp Gly Asp Leu Thr Thr Thr Ser  
 370 375 380  
 Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr Lys Leu  
 385 390 395 400  
 Asn Pro Tyr Ala Gly Gly Asp Gly Leu Gln Asn Asn Leu Ser Pro Lys  
 405 410 415  
 Thr Lys Gly Thr Pro Val His Leu Gly Thr Ile Val Gly Ile Val Leu  
 420 425 430  
 Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr Ile Asn  
 435 440 445  
 Gly His Pro Thr Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg Arg Pro  
 450 455 460  
 His His Trp Pro Ala Met Lys Phe Arg Ser His Pro Asp His Ser Thr  
 465 470 475 480  
 Tyr Ala Glu Val Glu Pro Ser Gly His Glu Lys Glu Gly Phe Met Glu  
 485 490 495  
 Ala Glu Gln Cys  
 500

&lt;210&gt; 80

&lt;211&gt; 509

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 80

Met Glu Asp Ile Gln Thr Asn Ala Glu Leu Lys Ser Thr Gln Glu Gln  
 1 5 10 15  
 Ser Val Pro Ala Glu Ser Ala Ala Val Leu Asn Asp Tyr Ser Leu Thr  
 20 25 30  
 Lys Ser His Glu Met Glu Asn Val Asp Ser Gly Glu Gly Pro Ala Asn  
 35 40 45  
 Glu Asp Glu Asp Ile Gly Asp Asp Ser Met Lys Val Lys Asp Glu Tyr  
 50 55 60  
 Ser Glu Arg Asp Glu Asn Val Leu Lys Ser Glu Pro Met Gly Asn Ala  
 65 70 75 80  
 Glu Glu Pro Glu Ile Pro Tyr Ser Tyr Ser Arg Glu Tyr Asn Glu Tyr  
 85 90 95  
 Glu Asn Ile Lys Leu Glu Arg His Val Ser Phe Asp Ser Ser Arg  
 100 105 110  
 Pro Thr Ser Gly Lys Met Asn Cys Asp Val Cys Gly Leu Ser Cys Ile  
 115 120 125  
 Ser Phe Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg  
 130 135 140  
 Pro Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn  
 145 150 155 160  
 Leu Leu Arg His Ile Lys Leu His Thr Gly Glu Lys Pro Phe Lys Cys  
 165 170 175  
 His Leu Cys Asn Tyr Ala Cys Gln Arg Arg Asp Ala Leu Thr Gly His  
 180 185 190  
 Leu Arg Thr His Ser Val Glu Lys Pro Tyr Lys Cys Glu Phe Cys Gly  
 195 200 205

```

Arg Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys
 210          215          220
Arg Thr Phe Leu Gln Ser Thr Asp Pro Gly Asp Thr Ala Ser Ala Glu
225          230          235          240
Ala Arg His Ile Lys Ala Glu Met Gly Ser Glu Arg Ala Leu Val Leu
          245          250          255
Asp Arg Leu Ala Ser Asn Val Ala Lys Arg Lys Ser Ser Met Pro Gln
          260          265          270
Lys Phe Ile Gly Glu Lys Arg His Cys Phe Asp Val Asn Tyr Asn Ser
          275          280          285
Ser Tyr Met Tyr Glu Lys Glu Ser Glu Leu Ile Gln Thr Arg Met Met
          290          295          300
Asp Gln Ala Ile Asn Asn Ala Ile Ser Tyr Leu Gly Ala Glu Ala Leu
305          310          315          320
Cys Pro Leu Val Gln Thr Pro Pro Ala Pro Thr Ser Glu Met Val Pro
          325          330          335
Val Ile Ser Ser Met Tyr Pro Ile Ala Leu Thr Arg Ala Glu Met Ser
          340          345          350
Asn Gly Ala Pro Gln Glu Leu Glu Arg Lys Ser Ile Leu Leu Pro Glu
          355          360          365
Lys Ser Val Pro Ser Glu Arg Gly Leu Ser Pro Asn Asn Ser Gly His
          370          375          380
Asp Ser Thr Asp Thr Asp Ser Asn His Glu Glu Arg Gln Asn His Ile
385          390          395          400
Tyr Gln Gln Asn His Met Val Leu Ser Arg Ala Arg Asn Gly Met Pro
          405          410          415
Leu Leu Lys Glu Val Pro Arg Ser Tyr Glu Leu Leu Lys Pro Pro Pro
          420          425          430
Ile Cys Pro Arg Asp Ser Val Lys Val Ile Asp Lys Glu Gly Glu Val
          435          440          445
Met Asp Val Tyr Arg Cys Asp His Cys Arg Val Leu Phe Leu Asp Tyr
          450          455          460
Val Met Phe Thr Ile His Met Gly Cys His Gly Phe Arg Asp Pro Phe
465          470          475          480
Glu Cys Asn Met Cys Gly Asp Arg Ser His Asp Arg Tyr Glu Phe Ser
          485          490          495
Ser His Ile Ala Arg Gly Glu His Arg Ser Leu Leu Lys
          500          505

```

&lt;210&gt; 81

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

```

<400> 81
Met Pro Ile Pro Pro Pro Pro Pro Pro Pro Gly Pro Pro Pro Pro
1          5          10          15
Pro Thr Phe His Gln Ala Asn Thr Glu Gln Pro Lys Leu Ser Arg Asp
          20          25          30
Glu Gln Arg Gly Arg Gly Ala Leu Leu Gln Asp Ile Cys Lys Gly Thr
          35          40          45
Lys Leu Lys Lys Val Thr Asn Ile Asn Asp Arg Ser Ala Pro Ile Leu
          50          55          60
Glu Lys Pro Lys Gly Ser Ser Gly Gly Tyr Gly Ser Gly Gly Ala Ala
65          70          75          80
Leu Gln Pro Lys Gly Leu Phe Gln Gly Gly Val Leu Lys Leu Arg
          85          90          95
Pro Val Gly Ala Lys Asp Gly Ser Glu Asn Leu Ala Gly Lys Pro Ala
          100          105          110
Leu Gln Ile Pro Ser Ser Arg Ala Ala Ala Pro Arg Pro Pro Val Ser
          115          120          125

```

Ala Ala Ser Gly Arg Pro Gln Asp Asp Thr Asp Ser Ser Arg Ala Ser  
 130 135 140  
 Leu Pro Glu Leu Pro Arg Met Gln Arg Pro Ser Leu Pro Asp Leu Ser  
 145 150 155 160  
 Arg Pro Asn Thr Thr Ser Ser Thr Gly Met Lys His Ser Ser Ser Ala  
 165 170 175  
 Pro Pro Pro Pro Pro Gly Arg Arg Ala Asn Ala Pro Pro Thr Pro  
 180 185 190  
 Leu Pro Met His Ser Ser Lys Ala Pro Ala Tyr Asn Arg Glu Lys Pro  
 195 200 205  
 Leu Pro Pro Thr Pro Gly Gln Arg Leu His Pro Gly Arg Glu Gly Pro  
 210 215 220  
 Pro Ala Pro Pro Pro Val Lys Pro Pro Pro Ser Pro Val Asn Ile Arg  
 225 230 235 240  
 Thr Gly Pro Ser Gly Gln Ser Leu Ala Pro Pro Pro Pro Pro Tyr Arg  
 245 250 255  
 Gln Pro Pro Gly Val Pro Asn Gly Pro Ser Ser Pro Thr Asn Glu Ser  
 260 265 270  
 Ala Pro Glu Leu Pro Gln Arg His Asn Ser Leu His Arg Lys Thr Pro  
 275 280 285  
 Gly Pro Val Arg Gly Leu Ala Pro Pro Pro Pro Thr Ser Ala Ser Pro  
 290 295 300  
 Ser Leu Leu Ser Asn Arg Pro Pro Pro Ala Arg Asp Pro Pro Ser  
 305 310 315 320  
 Arg Gly Ala Ala Pro Pro Pro Pro Pro Val Ile Arg Asn Gly Ala  
 325 330 335  
 Arg Asp Ala Pro Pro Pro Pro Pro Tyr Arg Met His Gly Ser Glu  
 340 345 350  
 Pro Pro Ser Arg Gly Lys Pro Pro Pro Pro Ser Arg Thr Pro Ala  
 355 360 365  
 Gly Pro Pro Pro Pro Pro Pro Pro Pro Leu Arg Asn Gly His Arg Asp  
 370 375 380  
 Ser Ile Thr Thr Val Arg Ser Phe Leu Asp Asp Phe Glu Ser Lys Tyr  
 385 390 395 400  
 Ser Phe His Pro Val Glu Asp Phe Pro Ala Pro Glu Glu Tyr Lys His  
 405 410 415  
 Phe Gln Arg Ile Tyr Pro Ser Lys Thr Asn Arg Ala Ala Arg Gly Ala  
 420 425 430  
 Pro Pro Leu Pro Pro Ile Leu Arg  
 435 440  
 <210> 82  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 82  
 Met Ser Ile Met Ser Tyr Asn Gly Gly Ala Val Met Ala Met Lys Gly  
 1 5 10 15  
 Lys Asn Cys Val Ala Ile Ala Ala Asp Arg Arg Phe Gly Ile Gln Ala  
 20 25 30  
 Gln Met Val Thr Thr Asp Phe Gln Lys Ile Phe Pro Met Gly Asp Arg  
 35 40 45  
 Leu Tyr Ile Gly Leu Ala Gly Leu Ala Thr Asp Val Gln Thr Val Ala  
 50 55 60  
 Gln Arg Leu Lys Phe Arg Leu Asn Leu Tyr Glu Leu Lys Glu Gly Arg  
 65 70 75 80  
 Gln Ile Lys Pro Tyr Thr Leu Met Ser Met Val Ala Asn Leu Leu Tyr  
 85 90 95  
 Glu Lys Arg Phe Gly Pro Tyr Tyr Thr Glu Pro Val Ile Ala Gly Leu  
 100 105 110

<400>	83
Leu Thr Arg Ser Cys Ser Thr Cys Cys Pro Ala Val Ala Cys Leu Val	15
1 Gly Arg Gly Val Val Thr Ser Gly Ala Met His Gln Cys Trp Gly Glu	30
Glu Met Leu Gln Gly Met Leu Leu Trp Gly Trp Ala Thr Cys Pro Leu	45
Ser Asn Pro Gly Arg Trp Gly Arg Thr Val Gly Leu Gln His Pro Ala	60
Val Val Ser Ala Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val His	75
65 Val Ser Tyr Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu Val	90
Ala Asn Val Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp	105
Cys Leu Trp Asn Gln Arg Arg Leu Pro His Val Arg Lys Cys Val Val	120
Val Val Leu Leu Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp Phe	135
Pro Pro Leu Phe Trp Val Leu Asp Ala His Ala Ile Trp His Ile Ser	150
145 Thr Ile Pro Val His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp Ser	165
Leu Tyr Leu Leu Lys Glu Ser Glu Asp Lys Phe Lys Leu Asp	180
<210>	84
<211>	368
<212>	PRT
<213>	Homo sapiens

<400>	84														
Ala	Pro	Pro	Pro	Ala	Ala	Ser	Gln	Gly	Glu	Arg	Met	Ala	Gly	Leu	Ala
1				5					10					15	
Ala	Arg	Leu	Val	Leu	Leu	Ala	Gly	Ala	Ala	Ala	Leu	Ala	Ser	Gly	Ser
			20					25					30		
Gln	Gly	Asp	Arg	Glu	Pro	Val	Tyr	Arg	Asp	Cys	Val	Leu	Gln	Cys	Glu
		35					40					45			
Glu	Gln	Asn	Cys	Ser	Gly	Gly	Ala	Leu	Asn	His	Phe	Arg	Ser	Arg	Gln
	50					55					60				

Pro Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys Arg Asp Asp Cys Lys  
 65 70 75 80  
 Tyr Glu Cys Met Trp Val Thr Val Gly Leu Tyr Leu Gln Glu Gly His  
 85 90 95  
 Lys Val Pro Gln Phe His Gly Lys Trp Pro Phe Ser Arg Phe Leu Phe  
 100 105 110  
 Phe Gln Glu Pro Ala Ser Ala Val Ala Ser Phe Leu Asn Gly Leu Ala  
 115 120 125  
 Ser Leu Val Met Leu Cys Arg Tyr Arg Thr Phe Val Pro Ala Ser Ser  
 130 135 140  
 Pro Met Tyr His Thr Cys Val Ala Phe Ala Trp Val Ser Leu Asn Ala  
 145 150 155 160  
 Trp Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu  
 165 170 175  
 Lys Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile Tyr  
 180 185 190  
 Leu Cys Cys Val Arg Thr Val Gly Leu Gln His Pro Ala Val Val Ser  
 195 200 205  
 Ala Phe Arg Ala Leu Leu Leu Met Leu Thr Val His Val Ser Tyr  
 210 215 220  
 Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu Val Ala Asn Val  
 225 230 235 240  
 Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp Cys Leu Trp  
 245 250 255  
 Asn Gln Arg Arg Leu Pro His Val Arg Lys Cys Val Val Val Leu  
 260 265 270  
 Leu Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp Phe Pro Pro Leu  
 275 280 285  
 Phe Trp Val Leu Asp Ala His Ala Ile Trp His Ile Ser Thr Ile Pro  
 290 295 300  
 Val His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp Ser Leu Tyr Leu  
 305 310 315 320  
 Leu Lys Glu Ser Glu Asp Lys Phe Lys Leu Val Glu Ala Asp Trp Ile  
 325 330 335  
 Phe Ala Leu Pro Leu Thr Pro Cys Pro Ser Leu Arg Glu Gly Ser Tyr  
 340 345 350  
 Ala Arg Thr Pro Thr Ser Gly Thr Arg Val Ala Cys Ala Ser Phe Phe  
 355 360 365  
 <210> 85  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens  
 <400> 85  
 Leu Thr Arg Ser Cys Ser Thr Cys Cys Pro Ala Val Ala Cys Leu Val  
 1 5 10 15  
 Gly Arg Gly Val Thr Ser Gly Ala Met His Gln Cys Trp Gly Glu  
 20 25 30  
 Glu Met Leu Gln Gly Met Leu Leu Trp Gly Trp Ala Thr Cys Pro Leu  
 35 40 45  
 Ser Asn Pro Gly Arg Trp Gly Arg Thr Val Gly Leu Gln His Pro Ala  
 50 55 60  
 Val Val Ser Ala Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val His  
 65 70 75 80  
 Val Ser Tyr Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu Val  
 85 90 95  
 Ala Asn Val Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp  
 100 105 110  
 Cys Leu Trp Asn Gln Arg Arg Leu Pro His Val Arg Lys Cys Val Val  
 115 120 125

Val Val Leu Leu Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp Phe  
 130 135 140  
 Pro Pro Leu Phe Trp Val Leu Asp Ala His Ala Ile Trp His Ile Ser  
 145 150 155 160  
 Thr Ile Pro Val His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp Ser  
 165 170 175  
 Leu Tyr Leu Leu Lys Glu Ser Glu Asp Lys Phe Lys Leu Asp  
 180 185 190  
 <210> 86  
 <211> 318  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Met Ala Gly Leu Ala Ala Arg Leu Val Leu Leu Ala Gly Ala Ala Ala  
 1 5 10 15  
 Leu Ala Ser Gly Ser Gln Gly Asp Arg Glu Pro Val Tyr Arg Asp Cys  
 20 25 30  
 Val Leu Gln Cys Glu Glu Gln Asn Cys Ser Gly Gly Ala Leu Asn His  
 35 40 45  
 Phe Arg Ser Arg Gln Pro Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys  
 50 55 60  
 Arg Asp Asp Cys Lys Tyr Glu Cys Met Trp Val Thr Val Gly Leu Tyr  
 65 70 75 80  
 Leu Gln Glu Gly His Lys Val Pro Gln Phe His Gly Lys Trp Pro Phe  
 85 90 95  
 Ser Arg Phe Leu Phe Phe Gln Glu Pro Ala Ser Ala Val Ala Ser Phe  
 100 105 110  
 Leu Asn Gly Leu Ala Ser Leu Val Met Leu Cys Arg Tyr Arg Thr Phe  
 115 120 125  
 Val Pro Ala Ser Ser Pro Met Tyr His Thr Cys Val Ala Phe Ala Trp  
 130 135 140  
 Val Ser Leu Asn Ala Trp Phe Trp Ser Thr Val Phe His Thr Arg Asp  
 145 150 155 160  
 Thr Asp Leu Gln Arg Lys Trp Thr Thr Ser Val Pro Pro Val Ser Tyr  
 165 170 175  
 Thr Gln Ser Thr Cys Ala Ala Ser Gly Pro Trp Gly Cys Ser Thr Gln  
 180 185 190  
 Leu Trp Ser Ser Ala Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val  
 195 200 205  
 His Val Ser Tyr Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu  
 210 215 220  
 Val Ala Asn Val Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala  
 225 230 235 240  
 Trp Cys Leu Trp Asn Gln Arg Arg Leu Pro His Val Arg Lys Cys Val  
 245 250 255  
 Val Val Val Leu Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp  
 260 265 270  
 Phe Pro Pro Leu Phe Trp Val Leu Asp Ala His Ala Ile Trp His Ile  
 275 280 285  
 Ser Thr Ile Pro Val His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp  
 290 295 300  
 Ser Leu Tyr Leu Leu Lys Glu Ser Glu Asp Lys Phe Lys Leu  
 305 310 315  
 <210> 87  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 87

```

Met Ala Gly Leu Ala Ala Arg Leu Val Leu Leu Ala Gly Ala Ala Ala
1      5      10      15
Leu Ala Ser Gly Ser Gln Gly Asp Arg Glu Pro Val Tyr Arg Asp Cys
20      25      30
Val Leu Gln Cys Glu Glu Gln Asn Cys Ser Gly Gly Ala Leu Asn His
35      40      45
Phe Arg Ser Arg Gln Pro Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys
50      55      60
Arg Asp Asp Cys Lys Tyr Glu Cys Met Trp Val Thr Val Gly Leu Tyr
65      70      75      80
Leu Gln Glu Gly His Lys Val Pro Gln Phe His Gly Lys Trp Pro Phe
85      90      95
Ser Arg Phe Leu Phe Phe Gln Glu Pro Ala Ser Ala Val Ala Ser Phe
100     105     110
Leu Asn Gly Leu Ala Ser Leu Val Met Leu Cys Arg Tyr Arg Thr Phe
115     120     125
Val Pro Ala Ser Ser Pro Met Tyr His Thr Cys Val Ala Phe Ala Trp
130     135     140
Val Ser Leu Asn Ala Trp Phe Trp Ser Thr Val Phe His Thr Arg Asp
145     150     155     160
Thr Asp Leu Thr Glu Lys Met Asp Tyr Phe Cys Ala Ser Thr Val Ile
165     170     175
Leu His Ser Ile Tyr Leu Cys Cys Val Arg Pro Gly Gln Arg Gly Val
180     185     190
Val Ala Gly Leu Val Pro Val Glu Pro Ala Ala Ala Ala Ser Arg Ala
195     200     205
Gln Val Arg Gly Gly Gly Leu Ala Ala Ala Gly Ala Val Pro Ala Arg
210     215     220
Ala Ala
225

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&lt;210&gt; 88

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

```

Met Ala Gly Leu Ala Ala Arg Leu Val Leu Leu Ala Gly Ala Ala Ala
1      5      10      15
Leu Ala Ser Gly Ser Gln Gly Asp Arg Glu Pro Val Tyr Arg Asp Cys
20      25      30
Val Leu Gln Cys Glu Glu Gln Asn Cys Ser Gly Gly Ala Leu Asn His
35      40      45
Phe Arg Ser Arg Gln Pro Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys
50      55      60
Arg Asp Asp Cys Lys Tyr Glu Cys Met Trp Val Thr Val Gly Leu Tyr
65      70      75      80
Leu Gln Glu Gly His Lys Val Pro Gln Phe His Gly Lys Trp Pro Phe
85      90      95
Ser Arg Phe Leu Phe Phe Gln Glu Pro Ala Ser Ala Val Ala Ser Phe
100     105     110
Leu Asn Gly Leu Ala Ser Leu Val Met Leu Cys Arg Tyr Arg Thr Phe
115     120     125
Val Pro Ala Ser Ser Pro Met Tyr His Thr Cys Val Ala Phe Ala Trp
130     135     140
Val Ser Leu Asn Ala Trp Phe Trp Ser Thr Val Phe His Thr Arg Asp
145     150     155     160

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- 97 -

Thr Asp Leu Thr Glu Lys Met Asp Tyr Phe Cys Ala Ser Thr Val Ile  
 165 170 175  
 Leu His Ser Ile Tyr Leu Cys Cys Val Arg Thr Val Gly Leu Gln His  
 180 185 190  
 Pro Ala Val Val Ser Ala Phe Arg Ala Leu Leu Leu Leu Met Leu Thr  
 195 200 205  
 Val His Val Ser Tyr Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn  
 210 215 220  
 Leu Val Ala Asn Val Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu  
 225 230 235 240  
 Ala Trp Cys Leu Trp Asn Gln Arg Arg Leu Pro His Val Arg Lys Cys  
 245 250 255  
 Val Val Val Val Leu Leu Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu  
 260 265 270  
 Asp Phe Pro Pro Leu Phe Trp Val Leu Asp Ala His Ala Ile Trp His  
 275 280 285  
 Ile Ser Thr Ile Pro Val His Val Leu Phe Phe Ser Phe Leu Glu Asp  
 290 295 300  
 Asp Ser Leu Tyr Leu Leu Lys Glu Ser Glu Asp Lys Phe Lys Leu Asp  
 305 310 315 320  
 <210> 89  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 89  
 Ala Pro Pro Pro Ala Ala Ser Gln Gly Glu Arg Met Ala Gly Leu Ala  
 1 5 10 15  
 Ala Arg Leu Val Leu Leu Ala Gly Ala Ala Ala Leu Ala Ser Gly Ser  
 20 25 30  
 Gln Gly Asp Arg Glu Pro Val Tyr Arg Asp Cys Val Leu Gln Cys Glu  
 35 40 45  
 Glu Gln Asn Cys Ser Gly Gly Ala Leu Asn His Phe Arg Ser Arg Gln  
 50 55 60  
 Pro Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys Arg Asp Asp Cys Lys  
 65 70 75 80  
 Tyr Glu Cys Met Trp Val Thr Val Gly Leu Tyr Leu Gln Glu Gly His  
 85 90 95  
 Lys Val Pro Gln Phe His Gly Lys Trp Pro Phe Ser Arg Phe Leu Phe  
 100 105 110  
 Phe Gln Glu Pro Ala Ser Ala Val Ala Ser Phe Leu Asn Gly Leu Ala  
 115 120 125  
 Ser Leu Val Met Leu Cys Arg Tyr Arg Thr Phe Val Pro Ala Ser Ser  
 130 135 140  
 Pro Met Tyr His Thr Cys Val Ala Phe Ala Trp Val Ser Leu Asn Ala  
 145 150 155 160  
 Trp Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu  
 165 170 175  
 Lys Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile Tyr  
 180 185 190  
 Leu Cys Cys Val Ser Phe Leu Glu Asp Asp Ser Leu Tyr Leu Leu Lys  
 195 200 205  
 Glu Ser Glu Asp Lys Phe Lys Leu Asp  
 210 215  
 <210> 90  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 90

```

Met Asn Val Gly Thr Ala His Ser Glu Val Asn Pro Asn Thr Arg Val
1      5      10      15
Met Asn Ser Arg Gly Ile Trp Leu Ser Tyr Val Leu Ala Ile Gly Leu
      20      25      30
Leu His Ile Val Leu Leu Ser Ile Pro Phe Val Ser Val Pro Val Val
      35      40      45
Trp Thr Leu Thr Asn Leu Ile His Asn Met Gly Met Tyr Ile Phe Leu
      50      55      60
His Thr Val Lys Gly Thr Pro Phe Glu Thr Pro Asp Gln Gly Lys Ala
65      70      75      80
Arg Leu Leu Thr His Trp Glu Gln Met Asp Tyr Gly Val Gln Phe Thr
      85      90      95
Ala Ser Arg Lys Phe Leu Thr Ile Thr Pro Ile Val Leu Tyr Phe Leu
      100      105      110
Thr Ser Phe Tyr Thr Lys Tyr Asp Gln Ile His Phe Val Leu Asn Thr
      115      120      125
Val Ser Leu Met Ser Val Leu Ile Pro Lys Leu Pro Gln Leu His Gly
      130      135      140
Val Arg Ile Phe Gly Ile Asn Lys Tyr
145      150

```

&lt;210&gt; 91

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 91

```

Met Arg Arg Asp Val Asn Gly Val Thr Lys Ser Arg Phe Glu Met Phe
1      5      10      15
Ser Asn Ser Asp Glu Ala Val Ile Asn Lys Lys Leu Pro Lys Glu Leu
      20      25      30
Leu Leu Arg Ile Phe Ser Phe Leu Asp Val Val Thr Leu Cys Arg Cys
      35      40      45
Ala Gln Val Ser Arg Ala Trp Asn Val Leu Ala Leu Asp Gly Ser Asn
      50      55      60
Trp Gln Arg Ile Asp Leu Phe Asp Phe Gln Arg Asp Ile Glu Gly Arg
65      70      75      80
Val Val Glu Asn Ile Ser Lys Arg Cys Gly Gly Phe Leu Arg Lys Leu
      85      90      95
Ser Leu Arg Gly Cys Leu Gly Val Gly Asp Asn Ala Leu Arg Thr Phe
      100      105      110
Ala Gln Asn Cys Arg Asn Ile Glu Val Leu Asn Leu Asn Gly Cys Thr
      115      120      125
Lys Thr Thr Asp Ala Thr Cys Thr Ser Leu Ser Lys Phe Cys Ser Lys
      130      135      140
Leu Arg His Leu Asp Leu Ala Ser Cys Thr Ser Ile Thr Asn Met Ser
145      150      155      160
Leu Lys Ala Leu Ser Glu Gly Cys Pro Leu Leu Glu Gln Leu Asn Ile
      165      170      175
Ser Trp Cys Asp Gln Val Thr Lys Asp Gly Ile Gln Ala Leu Val Arg
      180      185      190
Gly Cys Gly Gly Leu Lys Ala Leu Phe Leu Lys Gly Cys Thr Gln Leu
      195      200      205
Glu Asp Glu Ala Leu Lys Tyr Ile Gly Ala His Cys Pro Glu Leu Val
      210      215      220
Thr Leu Asn Leu Gln Thr Cys Leu Gln Ile Thr Asp Glu Gly Leu Ile
225      230      235      240

```

Thr Ile Cys Arg Gly Cys His Lys Leu Gln Ser Leu Cys Ala Ser Gly  
 245 250 255  
 Cys Ser Asn Ile Thr Asp Ala Ile Leu Asn Ala Leu Gly Gln Asn Cys  
 260 265 270  
 Pro Arg Leu Arg Ile Leu Glu Val Ala Arg Cys Ser Gln Leu Thr Asp  
 275 280 285  
 Val Gly Phe Thr Thr Leu Ala Arg Asn Cys His Glu Leu Glu Lys Met  
 290 295 300  
 Asp Leu Glu Glu Cys Val Gln Ile Thr Asp Ser Thr Leu Ile Gln Leu  
 305 310 315 320  
 Ser Ile His Cys Pro Arg Leu Gln Val Leu Ser Leu Ser His Cys Glu  
 325 330 335  
 Leu Ile Thr Asp Asp Gly Ile Arg His Leu Gly Asn Gly Ala Cys Ala  
 340 345 350  
 His Asp Gln Leu Glu Val Ile Glu Leu Asp Asn Cys Pro Leu Ile Thr  
 355 360 365  
 Asp Ala Ser Leu Glu His Leu Lys Ser Cys His Ser Leu Glu Arg Ile  
 370 375 380  
 Glu Leu Tyr Asp Cys Gln Gln Ile Thr Arg Ala Gly Ile Lys Arg Leu  
 385 390 395 400  
 Arg Thr His Leu Pro Asn Ile Lys Val His Ala Tyr Phe Ala Pro Val  
 405 410 415  
 Thr Pro Pro Pro Ser Val Gly Gly Ser Arg Gln Arg Phe Cys Arg Cys  
 420 425 430  
 Cys Ile Ile Leu  
 435

&lt;210&gt; 92

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 92  
 Met Asp Pro Lys Asp Arg Lys Lys Ile Gln Phe Ser Val Pro Ala Pro  
 1 5 10 15  
 Pro Ser Gln Leu Asp Pro Arg Gln Val Glu Met Ile Arg Arg Arg Arg  
 20 25 30  
 Pro Thr Pro Ala Met Leu Phe Arg Leu Ser Glu His Ser Pro Glu  
 35 40 45  
 Glu Glu Ala Ser Pro His Gln Arg Ala Ser Gly Glu Gly His His Leu  
 50 55 60  
 Lys Ser Lys Arg Pro Asn Pro Cys Ala Tyr Thr Pro Pro Ser Leu Lys  
 65 70 75 80  
 Ala Val Gln Arg Ile Ala Glu Ser His Leu Gln Ser Ile Ser Asn Leu  
 85 90 95  
 Asn Glu Asn Gln Ala Ser Glu Glu Glu Asp Glu Leu Gly Glu Leu Arg  
 100 105 110  
 Glu Leu Gly Tyr Pro Arg Glu Glu Asp Glu Glu Glu Glu Asp Asp  
 115 120 125  
 Glu Glu Glu Glu Glu Glu Asp Ser Gln Ala Glu Val Leu Lys Val  
 130 135 140  
 Ile Arg Gln Ser Ala Gly Gln Lys Thr Thr Cys Gly Gln Gly Leu Glu  
 145 150 155 160  
 Gly Pro Trp Glu Arg Pro Pro Pro Leu Asp Glu Ser Glu Arg Asp Gly  
 165 170 175  
 Gly Ser Glu Asp Gln Val Glu Asp Pro Ala Leu Ser Glu Pro Gly Glu  
 180 185 190  
 Glu Pro Gln Arg Pro Ser Pro Ser Glu Pro Gly Thr  
 195 200

&lt;210&gt; 93

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 93

```

Met Ser Gly Glu Pro Gly Gln Thr Ser Val Ala Pro Pro Pro Glu Glu
1          5          10          15
Val Glu Pro Gly Ser Gly Val Arg Ile Val Val Glu Tyr Cys Glu Pro
          20          25          30
Cys Gly Phe Glu Ala Thr Tyr Leu Glu Leu Ala Ser Ala Val Lys Glu
          35          40          45
Gln Tyr Pro Gly Ile Glu Ile Glu Ser Arg Leu Gly Gly Thr Gly Ala
          50          55          60
Phe Glu Ile Glu Ile Asn Gly Gln Leu Val Phe Ser Lys Leu Glu Asn
65          70          75          80
Gly Gly Phe Pro Tyr Glu Lys Asp Leu Ile Glu Ala Ile Arg Arg Ala
          85          90          95
Ser Asn Gly Glu Thr Leu Glu Lys Ile Thr Asn Ser Arg Pro Pro Cys
          100          105          110
Val Ile Leu
          115

```

&lt;210&gt; 94

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 94

```

Met Gly Ala Val Val Leu Cys Arg Pro Ser Pro Leu Asn Phe Leu Ile
1          5          10          15
Gln Thr Gly Thr Gly Gln Gly Leu Ser Cys Gly Ser His Met Trp Arg
          20          25          30
Cys Glu Ala Thr Pro Cys Gly Val Cys Gly Glu Ser Pro Val Gly Ser
          35          40          45
Leu Leu Lys Gln His Arg Gly Arg Gly Lys Thr Trp Pro Val Gly Thr
          50          55          60
Val Ser Ala Cys Arg Glu Glu Ser Glu Ala Gly Ser Leu Ser Leu Gly
65          70          75          80
Trp Ser Leu Leu Pro Ser Pro Val Gly Leu Gly Ala Val Leu Ile Leu
          85          90          95
Lys Arg Cys Gly Ser Leu Cys Pro Leu Pro Gly Val Gln Gly Asn Arg
          100          105          110
Arg Gly His Trp Ala Cys Phe Leu Pro Pro Asp Pro Ala Ser Pro Thr
          115          120          125
Pro Cys Ile Ile Gly Asn Phe His Leu Lys Ile Phe Leu Ser Lys Val
          130          135          140

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&lt;210&gt; 95

&lt;211&gt; 425

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 95

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Met Gly Gly Gly Asp Leu Asn Leu Lys Lys Ser Trp His Pro Gln Thr
1          5          10          15

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Leu Arg Asn Val Glu Lys Val Trp Lys Ala Glu Gln Lys His Glu Ala  
 20 25 30  
 Glu Arg Lys Lys Ile Glu Glu Leu Gln Arg Glu Leu Arg Glu Glu Arg  
 35 40 45  
 Ala Arg Glu Glu Met Gln Arg Tyr Ala Glu Asp Val Gly Ala Val Lys  
 50 55 60  
 Lys Lys Glu Glu Lys Leu Asp Trp Met Tyr Gln Gly Pro Gly Gly Met  
 65 70 75 80  
 Val Asn Arg Asp Glu Tyr Leu Leu Gly Arg Pro Ile Asp Lys Tyr Val  
 85 90 95  
 Phe Glu Lys Met Glu Glu Lys Glu Ala Gly Cys Ser Ser Glu Thr Gly  
 100 105 110  
 Leu Leu Pro Gly Ser Ile Phe Ala Pro Ser Gly Ala Asn Ser Leu Leu  
 115 120 125  
 Asp Met Ala Ser Lys Ile Arg Glu Asp Pro Leu Phe Ile Ile Arg Lys  
 130 135 140  
 Lys Glu Glu Glu Lys Lys Arg Glu Val Leu Asn Asn Pro Val Lys Met  
 145 150 155 160  
 Lys Lys Ile Lys Glu Leu Leu Gln Met Ser Leu Glu Lys Lys Glu Lys  
 165 170 175  
 Lys Lys Lys Lys Glu Lys Lys Lys Lys His Lys Lys His Lys His Arg  
 180 185 190  
 Ser Ser Ser Ser Asp Arg Ser Ser Ser Glu Asp Glu His Ser Ala Gly  
 195 200 205  
 Arg Ser Gln Lys Lys Met Ala Asn Ser Ser Pro Val Leu Ser Lys Val  
 210 215 220  
 Pro Gly Tyr Gly Leu Gln Val Arg Asn Ser Asp Arg Asn Gln Gly Leu  
 225 230 235 240  
 Gln Gly Pro Leu Thr Ala Glu Gln Lys Arg Gly His Gly Met Lys Asn  
 245 250 255  
 His Ser Arg Ser Arg Ser Ser Ser His Ser Pro Pro Arg His Ala Ser  
 260 265 270  
 Lys Lys Ser Thr Arg Glu Ala Gly Ser Arg Asp Arg Arg Ser Arg Ser  
 275 280 285  
 Leu Gly Arg Arg Ser Arg Ser Pro Arg Pro Ser Lys Leu His Asn Ser  
 290 295 300  
 Lys Val Asn Arg Arg Glu Thr Gly Gln Thr Arg Ser Pro Ser Pro Lys  
 305 310 315 320  
 Lys Glu Val Tyr Gln Arg Arg His Ala Pro Gly Tyr Thr Arg Lys Leu  
 325 330 335  
 Ser Ala Glu Glu Leu Glu Arg Lys Arg Gln Glu Met Met Glu Asn Ala  
 340 345 350  
 Lys Trp Arg Glu Glu Glu Arg Leu Asn Ile Leu Lys Arg His Ala Lys  
 355 360 365  
 Asp Glu Glu Arg Glu Gln Arg Leu Glu Lys Leu Asp Ser Arg Asp Gly  
 370 375 380  
 Lys Phe Ile His Arg Met Lys Leu Glu Ser Ala Ser Thr Ser Ser Leu  
 385 390 395 400  
 Glu Asp Arg Val Lys Arg Asn Ile Tyr Ser Leu Gln Arg Thr Ser Val  
 405 410 415  
 Ala Leu Glu Lys Asn Phe Met Lys Arg  
 420 425

&lt;210&gt; 96

&lt;211&gt; 394

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 96

Met Phe Ser Val Phe Glu Glu Ile Thr Arg Ile Val Val Lys Glu Met  
 1 5 10 15

Asp Ala Gly Gly Asp Met Ile Ala Val Arg Ser Leu Val Asp Ala Asp  
 20 25 30  
 Arg Phe Arg Cys Phe His Leu Val Gly Glu Lys Arg Thr Phe Phe Gly  
 35 40 45  
 Cys Arg His Tyr Thr Thr Gly Leu Thr Leu Met Asp Ile Leu Asp Thr  
 50 55 60  
 His Gly Asp Lys Trp Leu Asp Glu Leu Asp Ser Gly Leu Gln Gly Gln  
 65 70 75 80  
 Lys Ala Glu Phe Gln Ile Leu Asp Asn Val Asp Ser Thr Gly Glu Leu  
 85 90 95  
 Ile Val Arg Leu Pro Lys Glu Ile Thr Ile Ser Gly Ser Phe Gln Gly  
 100 105 110  
 Phe His His Gln Lys Ile Lys Ile Ser Glu Asn Arg Ile Ser Gln Gln  
 115 120 125  
 Tyr Leu Ala Thr Leu Glu Asn Arg Lys Leu Lys Arg Glu Leu Pro Phe  
 130 135 140  
 Ser Phe Arg Ser Ile Asn Thr Arg Glu Asn Leu Tyr Leu Val Thr Glu  
 145 150 155 160  
 Thr Leu Glu Thr Val Lys Glu Glu Thr Leu Lys Ser Asp Arg Gln Tyr  
 165 170 175  
 Lys Phe Trp Ser Gln Ile Ser Gln Gly His Leu Ser Tyr Lys His Lys  
 180 185 190  
 Gly Gln Arg Glu Val Thr Ile Pro Pro Asn Arg Val Leu Ser Tyr Arg  
 195 200 205  
 Val Lys Gln Leu Val Phe Pro Asn Lys Glu Thr Met Arg Lys Ser Leu  
 210 215 220  
 Gly Ser Glu Asp Ser Arg Asn Met Lys Glu Lys Leu Glu Asp Met Glu  
 225 230 235 240  
 Ser Val Leu Lys Asp Leu Thr Glu Glu Lys Arg Lys Asp Val Leu Asn  
 245 250 255  
 Ser Leu Ala Lys Cys Leu Gly Lys Glu Asp Ile Arg Gln Asp Leu Glu  
 260 265 270  
 Gln Arg Val Ser Glu Val Leu Ile Ser Gly Glu Leu His Met Glu Asp  
 275 280 285  
 Pro Asp Lys Pro Leu Leu Ser Ser Leu Phe Asn Ala Ala Gly Val Leu  
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 Val Glu Ala Arg Ala Lys Ala Ile Leu Asp Phe Leu Asp Ala Leu Leu  
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 325 330 335  
 Thr Leu Pro Leu Leu Lys Asp Gln Val Lys Ser Val Met Glu Gln Asn  
 340 345 350  
 Trp Asp Glu Leu Ala Ser Ser Pro Pro Asp Met Asp Tyr Asp Pro Glu  
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 <212> PRT  
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 Gly Ala Gly His Ile Ile Lys Asp Leu Tyr Leu Leu Ile Met Lys Asp  
 35 40 45

Glu Ser Leu Tyr Gln Gly Leu Arg Glu Asp Thr Leu Arg Leu His Gln  
 50 55 60  
 Leu Val Glu Thr Val Glu Leu Lys Ile Pro Glu Glu Asn Gln Pro Pro  
 65 70 75 80  
 Ser Lys Gln Val Lys Pro Leu Phe Arg His Phe Arg Arg Ile Asp Ser  
 85 90 95  
 Cys Leu Gln Thr Arg Val Ala Phe Arg Gly Ser Asp Glu Ile Phe Cys  
 100 105 110  
 Arg Val Tyr Met Pro Asp His Ser Tyr Val Thr Ile Arg Ser Arg Leu  
 115 120 125  
 Ser Ala Ser Val Gln Asp Ile Leu Gly Ser Val Thr Glu Lys Leu Gln  
 130 135 140  
 Tyr Ser Glu Glu Pro Ala Gly Arg Glu Asp Ser Leu Ile Leu Val Ala  
 145 150 155 160  
 Val Ser Ser Ser Gly Glu Lys Val Leu Leu Gln Pro Thr Glu Asp Cys  
 165 170 175  
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 180 185 190  
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 195 200 205  
 Pro Gly Asp Thr Glu Ile His Arg Val Glu Pro Glu Asp Val Ala Asn  
 210 215 220  
 His Leu Thr Ala Phe His Trp Glu Leu Phe Arg Cys Val His Glu Leu  
 225 230 235 240  
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 245 250 255  
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 260 265 270  
 Val Ala Thr Glu Val Leu Leu Cys Glu Ala Pro Gly Lys Arg Ala Gln  
 275 280 285  
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 340 345 350  
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 355 360 365  
 Phe Val Pro Leu Ile Leu Lys Asp Leu Thr Phe Leu His Glu Gly Ser  
 370 375 380  
 Lys Thr Leu Val Asp Gly Leu Val Asn Ile Glu Lys Leu His Ser Val  
 385 390 395 400  
 Ala Glu Lys Val Arg Thr Ile Arg Lys Tyr Arg Ser Arg Pro Leu Cys  
 405 410 415  
 Leu Asp Met Glu Ala Ser Pro Asn His Leu Gln Thr Lys Ala Tyr Val  
 420 425 430  
 Arg Gln Phe Gln Val Ile Asp Asn Gln Asn Leu Leu Phe Glu Leu Ser  
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 Tyr Lys Leu Glu Ala Asn Ser Gln  
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&lt;210&gt; 98

&lt;211&gt; 715

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 98

Met Ser Gln Val Met Ser Ser Pro Leu Leu Ala Gly Gly His Ala Val  
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Ser	Pro	Ser	Leu	Pro	Pro	Gln	Cys	Ser	Tyr	Tyr	Thr	Thr	Glu	Gly	Trp
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Gly	Ala	Gln	Ala	Leu	Met	Ala	Pro	Val	Pro	Cys	Met	Gly	Pro	Pro	Gly
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Arg	Leu	Gln	Gln	Ala	Pro	Gln	Val	Glu	Ala	Lys	Ala	Thr	Cys	Phe	Leu
65					70					75					80
Pro	Ser	Pro	Gly	Glu	Lys	Ala	Leu	Gly	Thr	Pro	Glu	Asp	Leu	Asp	Ser
				85					90					95	
Tyr	Ile	Asp	Phe	Ser	Leu	Glu	Ser	Leu	Asn	Gln	Met	Ile	Leu	Glu	Leu
			100					105					110		
Asp	Pro	Thr	Phe	Gln	Leu	Leu	Pro	Pro	Gly	Thr	Gly	Gly	Ser	Gln	Ala
		115					120					125			
Glu	Leu	Ala	Gln	Ser	Thr	Met	Ser	Met	Arg	Lys	Lys	Glu	Glu	Ser	Glu
	130					135					140				
Ala	Leu	Asp	Ile	Lys	Tyr	Ile	Glu	Val	Thr	Ser	Ala	Arg	Ser	Arg	Cys
145					150					155					160
His	Asp	Trp	Pro	Gln	His	Cys	Ser	Ser	Pro	Ser	Val	Thr	Pro	Pro	Phe
				165					170					175	
Gly	Ser	Pro	Arg	Ser	Gly	Gly	Leu	Leu	Leu	Ser	Arg	Asp	Val	Pro	Arg
		180					185						190		
Glu	Thr	Arg	Ser	Ser	Ser	Glu	Ser	Leu	Ile	Phe	Ser	Gly	Asn	Gln	Gly
	195					200						205			
Arg	Gly	His	Gln	Arg	Pro	Leu	Pro	Pro	Ser	Glu	Gly	Leu	Ser	Pro	Arg
	210					215					220				
Pro	Pro	Asn	Ser	Pro	Ser	Ile	Ser	Ile	Pro	Cys	Met	Gly	Ser	Lys	Ala
225					230					235					240
Ser	Ser	Pro	His	Gly	Leu	Gly	Ser	Pro	Leu	Val	Ala	Ser	Pro	Arg	Leu
				245					250					255	
Glu	Lys	Arg	Leu	Gly	Gly	Leu	Ala	Pro	Gln	Arg	Gly	Ser	Arg	Ile	Ser
		260						265					270		
Val	Leu	Ser	Ala	Ser	Pro	Val	Ser	Asp	Val	Ser	Tyr	Met	Phe	Gly	Ser
	275						280					285			
Ser	Gln	Ser	Leu	Leu	His	Ser	Ser	Asn	Ser	Ser	His	Gln	Ser	Ser	Ser
	290					295					300				
Arg	Ser	Leu	Glu	Ser	Pro	Ala	Asn	Ser	Ser	Ser	Ser	Leu	His	Ser	Leu
305					310					315					320
Gly	Ser	Val	Ser	Leu	Cys	Thr	Arg	Pro	Ser	Asp	Phe	Gln	Ala	Pro	Arg
			325						330					335	
Asn	Pro	Thr	Leu	Thr	Met	Gly	Gln	Pro	Arg	Thr	Pro	His	Ser	Pro	Pro
		340						345					350		
Leu	Ala	Lys	Glu	His	Ala	Ser	Ile	Cys	Pro	Pro	Ser	Ile	Thr	Asn	Ser
	355						360					365			
Met	Val	Asp	Ile	Pro	Ile	Val	Leu	Ile	Asn	Gly	Cys	Pro	Glu	Pro	Gly
	370					375					380				
Ser	Ser	Pro	Pro	Gln	Arg	Thr	Pro	Gly	His	Gln	Asn	Ser	Val	Gln	Pro
385					390					395					400
Gly	Ala	Ala	Ser	Pro	Ser	Asn	Pro	Cys	Pro	Ala	Thr	Arg	Ser	Asn	Ser
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Gln	Thr	Leu	Ser	Asp	Ala	Pro	Phe	Thr	Thr	Cys	Pro	Glu	Gly	Pro	Ala
		420						425					430		
Arg	Asp	Met	Gln	Pro	Thr	Met	Lys	Phe	Val	Met	Asp	Thr	Ser	Lys	Tyr
	435						440					445			
Trp	Phe	Lys	Pro	Asn	Ile	Thr	Arg	Glu	Gln	Ala	Ile	Glu	Leu	Leu	Arg
	450					455					460				
Lys	Glu	Glu	Pro	Gly	Ala	Phe	Val	Ile	Arg	Asp	Ser	Ser	Ser	Tyr	Arg
465					470					475					480
Gly	Ser	Phe	Gly	Leu	Ala	Leu	Lys	Val	Gln	Glu	Val	Pro	Ala	Ser	Ala
			485						490					495	
Gln	Asn	Arg	Pro	Gly	Glu	Asp	Ser	Asn	Asp	Leu	Ile	Arg	His	Phe	Leu
		500						505					510		
Ile	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Leu	Lys	Gly	Ala	Asp	Glu	Glu
	515						520					525			
Pro	Tyr	Phe	Gly	Ser	Leu	Ser	Ala	Phe	Val	Cys	Gln	His	Ser	Ile	Met
	530					535					540				



- 105 -

Ala Leu Ala Leu Pro Cys Lys Leu Thr Ile Pro Gln Arg Glu Leu Gly  
 545 550 555 560  
 Gly Ala Asp Gly Ala Ser Asp Ser Thr Asp Ser Pro Ala Ser Cys Gln  
 565 570 575  
 Lys Lys Ser Ala Gly Cys His Thr Leu Tyr Leu Ser Ser Val Ser Val  
 580 585 590  
 Glu Thr Leu Thr Gly Ala Leu Ala Val Gln Lys Ala Ile Ser Thr Thr  
 595 600 605  
 Phe Glu Arg Asp Ile Leu Pro Thr Pro Thr Val Val His Phe Glu Val  
 610 615 620  
 Thr Glu Gln Gly Ile Thr Leu Thr Asp Val Gln Arg Lys Val Phe Phe  
 625 630 635 640  
 Arg Arg His Tyr Pro Leu Thr Thr Leu Arg Phe Cys Gly Met Asp Pro  
 645 650 655  
 Glu Gln Arg Lys Trp Gln Lys Tyr Cys Lys Pro Ser Trp Ile Phe Gly  
 660 665 670  
 Phe Val Ala Lys Ser Gln Thr Glu Pro Gln Glu Asn Val Cys His Leu  
 675 680 685  
 Phe Ala Glu Tyr Asp Met Val Gln Pro Ala Ser Gln Val Ile Gly Leu  
 690 695 700  
 Val Thr Ala Leu Leu Gln Asp Ala Glu Arg Met  
 705 710 715

&lt;210&gt; 99

&lt;211&gt; 35

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 99

ccatatataa aaccactgtc ctgtcctttg tggct

&lt;210&gt; 100

35

&lt;211&gt; 26

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 100

cccccatctg tctgtctata tttgtc

&lt;210&gt; 101

26

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;220&gt;

&lt;223&gt; PCR primer

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17

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24

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ctggtcaaac aaactctctg aaccctcc

29

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19

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<223> PCR primer

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20

<210> 141

<211> 25

<212> DNA

<213> Artificial sequence

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<210> 142

<211> 20

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&lt;211&gt; 3123

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 1817

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 319

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&lt;400&gt; 320

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&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 323

&lt;211&gt; 440

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 324

&lt;211&gt; 614

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 1193

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 986

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 328

&lt;211&gt; 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 328

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&lt;211&gt; 812

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 329

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 330

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<212> DNA

<213> Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 333

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&lt;211&gt; 942

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 334

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 347

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&lt;210&gt; 352

&lt;211&gt; 1986

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 352

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&lt;210&gt; 353

&lt;211&gt; 2837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 353

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&lt;210&gt; 354

&lt;211&gt; 1708

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

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&lt;210&gt; 355

&lt;211&gt; 2051

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

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&lt;210&gt; 356

&lt;211&gt; 1404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 356

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&lt;210&gt; 357

&lt;211&gt; 1693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 357

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&lt;213&gt; Homo sapiens

&lt;400&gt; 358

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&lt;210&gt; 367

&lt;211&gt; 1925

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 367

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&lt;210&gt; 368

&lt;211&gt; 2108

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 368

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&lt;210&gt; 369

&lt;211&gt; 1883

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 369

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&lt;210&gt; 370

&lt;211&gt; 13464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 370

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&lt;213&gt; Homo sapiens

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&lt;211&gt; 1986

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 2222

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&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

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&lt;213&gt; Homo sapiens

&lt;400&gt; 386

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&lt;213&gt; Homo sapiens

&lt;400&gt; 387

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&lt;211&gt; 1752

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 1412

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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&lt;210&gt; 390

&lt;211&gt; 2516

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 390

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&lt;211&gt; 3291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 331

<212> PRT

<213> Homo sapiens

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20          25          30
Phe Thr Gly Glu Thr Val Ser Leu Val Asp Val Asp Ile Ser Gln Arg
35          40          45

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Gly Leu Thr Ser Pro His Pro Pro Thr Pro Pro Pro Pro Pro Arg Arg  
 50 55 60  
 Ser Leu Ser Leu Leu Asp Asp Ile Ser Gly Thr Leu Pro Thr Ser Val  
 65 70 75 80  
 Leu Val Ala Pro Met Gly Ser Ser Leu Gln Ser Phe Pro Leu Pro Pro  
 85 90 95  
 Pro Pro Pro Pro His Ala Pro Asp Ala Phe Pro Arg Ile Ala Pro Ile  
 100 105 110  
 Arg Ala Ala Glu Ser Leu His Ser Gln Pro Pro Gln His Leu Gln Cys  
 115 120 125  
 Pro Leu Tyr Arg Pro Asp Ser Ser Ser Phe Ala Ala Ser Leu Arg Glu  
 130 135 140  
 Leu Glu Lys Cys Gly Trp Tyr Trp Gly Pro Met Asn Trp Glu Asp Ala  
 145 150 155 160  
 Glu Met Lys Leu Lys Gly Lys Pro Asp Gly Ser Phe Leu Val Arg Asp  
 165 170 175  
 Ser Ser Asp Pro Arg Tyr Ile Leu Ser Leu Ser Phe Arg Ser Gln Gly  
 180 185 190  
 Ile Thr His His Thr Arg Met Glu His Tyr Arg Gly Thr Phe Ser Leu  
 195 200 205  
 Trp Cys His Pro Lys Phe Glu Asp Arg Cys Gln Ser Val Val Glu Phe  
 210 215 220  
 Ile Lys Arg Ala Ile Met His Ser Lys Asn Gly Lys Phe Leu Tyr Phe  
 225 230 235 240  
 Leu Arg Ser Arg Val Pro Gly Leu Pro Pro Thr Pro Val Gln Leu Leu  
 245 250 255  
 Tyr Pro Val Ser Arg Phe Ser Asn Val Lys Ser Leu Gln His Leu Cys  
 260 265 270  
 Arg Phe Arg Ile Arg Gln Leu Val Arg Ile Asp His Ile Pro Asp Leu  
 275 280 285  
 Pro Leu Pro Lys Pro Leu Ile Ser Tyr Ile Arg Lys Phe Tyr Tyr Tyr  
 290 295 300  
 Asp Pro Gln Glu Glu Val Tyr Leu Ser Leu Lys Glu Ala Gln Leu Ile  
 305 310 315 320  
 Ser Lys Gln Lys Gln Glu Val Glu Pro Ser Thr  
 325 330

&lt;210&gt; 394

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

Met Ala Ala Pro Ile Pro Gln Gly Phe Ser Cys Leu Ser Arg Val Leu  
 1 5 10 15  
 Gly Trp Trp Ser Arg Gln Pro Val Leu Val Thr Gln Ser Ala Ala Ile  
 20 25 30  
 Val Pro Val Arg Thr Lys Lys Arg Phe Thr Pro Pro Ile Tyr Gln Pro  
 35 40 45  
 Lys Phe Lys Thr Glu Lys Glu Phe Met Gln His Ala Arg Lys Ala Gly  
 50 55 60  
 Leu Val Ile Pro Pro Glu Lys Ser Asp Arg Ser Ile His Leu Ala Cys  
 65 70 75 80  
 Thr Ala Gly Ile Phe Asp Ala Tyr Val Pro Pro Glu Gly Asp Ala Arg  
 85 90 95  
 Ile Ser Ser Leu Ser Lys Glu Gly Leu Ile Glu Arg Thr Glu Arg Met  
 100 105 110  
 Lys Lys Thr Met Ala Ser Gln Val Ser Ile Arg Arg Ile Lys Asp Tyr  
 115 120 125  
 Asp Ala Asn Phe Lys Ile Lys Asp Phe Pro Glu Lys Ala Lys Asp Ile  
 130 135 140

Phe Ile Glu Ala His Leu Cys Leu Asn Asn Ser Asp His Asp Arg Leu  
 145 150 155 160  
 His Thr Leu Val Thr Glu His Cys Phe Pro Asp Met Thr Trp Asp Ile  
 165 170 175  
 Lys Tyr Lys Thr Val Arg Trp Ser Phe Val Glu Ser Leu Glu Pro Ser  
 180 185 190  
 His Val Val Gln Val Arg Cys Ser Ser Met Met Asn Gln Gly Asn Val  
 195 200 205  
 Tyr Gly Gln Ile Thr Val Arg Met His Thr Arg Gln Thr Leu Ala Ile  
 210 215 220  
 Tyr Asp Arg Phe Gly Arg Leu Met Tyr Gly Gln Glu Asp Val Pro Lys  
 225 230 235 240  
 Asp Val Leu Glu Tyr Val Val Phe Glu Lys Gln Leu Thr Asn Pro Tyr  
 245 250 255  
 Gly Ser Trp Arg Met His Thr Lys Ile Val Pro Pro Trp Ala Pro Pro  
 260 265 270  
 Lys Gln Pro Ile Leu Lys Thr Val Met Ile Pro Gly Pro Gln Leu Lys  
 275 280 285  
 Pro Glu Glu Glu Tyr Glu Glu Ala Gln Gly Glu Ala Gln Lys Pro Gln  
 290 295 300  
 Leu Ala  
 305  
 <210> 395  
 <211> 557  
 <212> PRT  
 <213> Homo sapiens

<400> 395  
 Met Val Ser Lys Leu Thr Ser Leu Gln Gln Glu Leu Leu Ser Ala Leu  
 1 5 10 15  
 Leu Ser Ser Gly Val Thr Lys Glu Val Leu Val Gln Ala Leu Glu Glu  
 20 25 30  
 Leu Leu Pro Ser Pro Asn Phe Gly Val Lys Leu Glu Thr Leu Pro Leu  
 35 40 45  
 Ser Pro Gly Ser Gly Ala Glu Pro Asp Thr Lys Pro Val Phe His Thr  
 50 55 60  
 Leu Thr Asn Gly His Ala Lys Gly Arg Leu Ser Gly Asp Glu Gly Ser  
 65 70 75 80  
 Glu Asp Gly Asp Asp Tyr Asp Thr Pro Pro Ile Leu Lys Glu Leu Gln  
 85 90 95  
 Ala Leu Asn Thr Glu Glu Ala Ala Glu Gln Arg Ala Glu Val Asp Arg  
 100 105 110  
 Met Leu Ser Glu Asp Pro Trp Arg Ala Ala Lys Met Ile Lys Gly Tyr  
 115 120 125  
 Met Gln Gln His Asn Ile Pro Gln Arg Glu Val Val Asp Val Thr Gly  
 130 135 140  
 Leu Asn Gln Ser His Leu Ser Gln His Leu Asn Lys Gly Thr Pro Met  
 145 150 155 160  
 Lys Thr Gln Lys Arg Ala Ala Leu Tyr Thr Trp Tyr Val Arg Lys Gln  
 165 170 175  
 Arg Glu Ile Leu Arg Gln Phe Asn Gln Thr Val Gln Ser Ser Gly Asn  
 180 185 190  
 Met Thr Asp Lys Ser Ser Gln Asp Gln Leu Leu Phe Leu Phe Pro Glu  
 195 200 205  
 Phe Ser Gln Gln Ser His Gly Pro Gly Gln Ser Asp Asp Ala Cys Ser  
 210 215 220  
 Glu Pro Thr Asn Lys Lys Met Arg Arg Asn Arg Phe Lys Trp Gly Pro  
 225 230 235 240  
 Ala Ser Gln Gln Ile Leu Tyr Gln Ala Tyr Asp Arg Gln Lys Asn Pro  
 245 250 255

Ser Lys Glu Glu Arg Glu Ala Leu Val Glu Glu Cys Asn Arg Ala Glu  
 260 265 270  
 Cys Leu Gln Arg Gly Val Ser Pro Ser Lys Ala His Gly Leu Gly Ser  
 275 280 285  
 Asn Leu Val Thr Glu Val Arg Val Tyr Asn Trp Phe Ala Asn Arg Arg  
 290 295 300  
 Lys Glu Glu Ala Phe Arg Gln Lys Leu Ala Met Asp Ala Tyr Ser Ser  
 305 310 315 320  
 Asn Gln Thr His Ser Leu Asn Pro Leu Leu Ser His Gly Ser Pro His  
 325 330 335  
 His Gln Pro Ser Ser Pro Pro Asn Lys Leu Ser Gly Val Arg Tyr  
 340 345 350  
 Ser Gln Gln Gly Asn Asn Glu Ile Thr Ser Ser Ser Thr Ile Ser His  
 355 360 365  
 His Gly Asn Ser Ala Met Val Thr Ser Gln Ser Val Leu Gln Gln Val  
 370 375 380  
 Ser Pro Ala Ser Leu Asp Pro Gly His Asn Leu Leu Ser Pro Asp Gly  
 385 390 395 400  
 Lys Met Ile Ser Val Ser Gly Gly Gly Leu Pro Pro Val Ser Thr Leu  
 405 410 415  
 Thr Asn Ile His Ser Leu Ser His His Asn Pro Gln Gln Ser Gln Asn  
 420 425 430  
 Leu Ile Met Thr Pro Leu Ser Gly Val Met Ala Ile Ala Gln Ser Leu  
 435 440 445  
 Asn Thr Ser Gln Ala Gln Ser Val Pro Val Ile Asn Ser Val Ala Gly  
 450 455 460  
 Ser Leu Ala Ala Leu Gln Pro Val Gln Phe Ser Gln Gln Leu His Ser  
 465 470 475 480  
 Pro His Gln Gln Pro Leu Met Gln Gln Ser Pro Gly Ser His Met Ala  
 485 490 495  
 Gln Gln Pro Phe Met Ala Ala Val Thr Gln Leu Gln Asn Ser His Met  
 500 505 510  
 Tyr Ala His Lys Gln Glu Pro Pro Gln Tyr Ser His Thr Ser Arg Phe  
 515 520 525  
 Pro Ser Ala Met Val Val Thr Asp Thr Ser Ser Ile Ser Thr Leu Thr  
 530 535 540  
 Asn Met Ser Ser Ser Lys Gln Cys Pro Leu Gln Ala Trp  
 545 550 555  
 <210> 396  
 <211> 491  
 <212> PRT  
 <213> Homo sapiens

<400> 396  
 Met Ser Ser Val Glu Ala Lys Ile Glu Asp Lys Lys Val Gln Arg Glu  
 1 5 10 15  
 Ser Lys Leu Thr Ser Gly Lys Leu Glu Asn Leu Arg Lys Glu Lys Ile  
 20 25 30  
 Asn Phe Leu Arg Asn Lys His Lys Ile His Val Gln Gly Thr Asp Leu  
 35 40 45  
 Pro Asp Pro Ile Ala Thr Phe Gln Gln Leu Asp Gln Glu Tyr Lys Ile  
 50 55 60  
 Asn Ser Arg Leu Leu Gln Asn Ile Leu Asp Ala Gly Phe Gln Met Pro  
 65 70 75 80  
 Thr Pro Ile Gln Met Gln Ala Ile Pro Val Met Leu His Gly Arg Glu  
 85 90 95  
 Leu Leu Ala Ser Ala Pro Thr Gly Ser Gly Lys Thr Leu Ala Phe Ser  
 100 105 110  
 Ile Pro Ile Leu Met Gln Leu Lys Gln Pro Ala Asn Lys Gly Phe Arg  
 115 120 125

Ala Leu Ile Ile Ser Pro Thr Arg Glu Leu Ala Ser Gln Ile His Arg  
 130 135 140  
 Glu Leu Ile Lys Ile Ser Glu Gly Thr Gly Phe Arg Ile His Met Ile  
 145 150 155 160  
 His Lys Ala Ala Val Ala Ala Lys Lys Phe Gly Pro Lys Ser Ser Lys  
 165 170 175  
 Lys Phe Asp Ile Leu Val Thr Thr Pro Asn Arg Leu Ile Tyr Leu Leu  
 180 185 190  
 Lys Gln Asp Pro Pro Gly Ile Asp Leu Ala Ser Val Glu Trp Leu Val  
 195 200 205  
 Val Asp Glu Ser Asp Lys Leu Phe Glu Asp Gly Lys Thr Gly Phe Arg  
 210 215 220  
 Asp Gln Leu Ala Ser Ile Phe Leu Ala Cys Thr Ser His Lys Val Arg  
 225 230 235 240  
 Arg Ala Met Phe Ser Ala Thr Phe Ala Tyr Asp Val Glu Gln Trp Cys  
 245 250 255  
 Lys Leu Asn Leu Asp Asn Val Ile Ser Val Ser Ile Gly Ala Arg Asn  
 260 265 270  
 Ser Ala Val Glu Thr Val Glu Gln Glu Leu Leu Phe Val Gly Ser Glu  
 275 280 285  
 Thr Gly Lys Leu Leu Ala Val Arg Glu Leu Val Lys Lys Gly Phe Asn  
 290 295 300  
 Pro Pro Val Leu Val Phe Val Gln Ser Ile Glu Arg Ala Lys Glu Leu  
 305 310 315 320  
 Phe His Glu Leu Ile Tyr Glu Gly Ile Asn Val Asp Val Ile His Ala  
 325 330 335  
 Glu Arg Thr Gln Gln Gln Arg Asp Asn Thr Val His Ser Phe Arg Ala  
 340 345 350  
 Gly Lys Ile Trp Val Leu Ile Cys Thr Ala Leu Leu Ala Arg Gly Ile  
 355 360 365  
 Asp Phe Lys Gly Val Asn Leu Val Ile Asn Tyr Asp Phe Pro Thr Ser  
 370 375 380  
 Ser Val Glu Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala Gly Asn  
 385 390 395 400  
 Lys Gly Lys Ala Ile Thr Phe Phe Thr Glu Asp Asp Lys Pro Leu Leu  
 405 410 415  
 Arg Ser Val Ala Asn Val Ile Gln Gln Ala Gly Cys Pro Val Pro Glu  
 420 425 430  
 Tyr Ile Lys Gly Phe Gln Lys Leu Leu Ser Lys Gln Lys Lys Lys Met  
 435 440 445  
 Ile Lys Lys Pro Leu Glu Arg Glu Ser Ile Ser Thr Thr Pro Lys Cys  
 450 455 460  
 Phe Leu Glu Lys Ala Lys Asp Lys Gln Arg Lys Val Thr Gly Gln Asn  
 465 470 475 480  
 Ser Lys Lys Lys Val Ala Leu Glu Asp Lys Ser  
 485 490

&lt;210&gt; 397

&lt;211&gt; 424

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 397

Met Asp Phe Ser Arg Arg Ser Phe His Arg Ser Leu Ser Ser Ser Leu  
 1 5 10 15  
 Gln Ala Pro Val Val Ser Thr Val Gly Met Gln Arg Leu Gly Thr Thr  
 20 25 30  
 Pro Ser Val Tyr Gly Gly Ala Gly Gly Arg Gly Ile Arg Ile Ser Asn  
 35 40 45  
 Ser Arg His Thr Val Asn Tyr Gly Ser Asp Leu Thr Gly Gly Gly Asp  
 50 55 60

Leu Phe Val Gly Asn Glu Lys Met Ala Met Gln Asn Leu Asn Asp Arg  
 65 70 75 80  
 Leu Ala Ser Tyr Leu Glu Lys Val Arg Thr Leu Glu Gln Ser Asn Ser  
 85 90 95  
 Lys Leu Glu Val Gln Ile Lys Gln Trp Tyr Glu Thr Asn Ala Pro Arg  
 100 105 110  
 Ala Gly Arg Asp Tyr Ser Ala Tyr Tyr Arg Gln Ile Glu Glu Leu Arg  
 115 120 125  
 Ser Gln Ile Lys Asp Ala Gln Leu Gln Asn Ala Arg Cys Val Leu Gln  
 130 135 140  
 Ile Asp Asn Ala Lys Leu Ala Ala Glu Asp Phe Arg Leu Lys Tyr Glu  
 145 150 155 160  
 Thr Glu Arg Gly Ile Arg Leu Thr Val Glu Ala Asp Leu Gln Gly Leu  
 165 170 175  
 Asn Lys Val Phe Asp Asp Leu Thr Leu His Lys Thr Asp Leu Glu Ile  
 180 185 190  
 Gln Ile Glu Glu Leu Asn Lys Asp Leu Ala Leu Leu Lys Lys Glu His  
 195 200 205  
 Gln Glu Glu Val Asp Gly Leu His Lys His Leu Gly Asn Thr Val Asn  
 210 215 220  
 Val Glu Val Asp Ala Ala Pro Gly Leu Asn Leu Gly Val Ile Met Asn  
 225 230 235 240  
 Glu Met Arg Gln Lys Tyr Glu Val Met Ala Gln Lys Asn Leu Gln Glu  
 245 250 255  
 Ala Lys Glu Gln Phe Glu Arg Gln Thr Ala Val Leu Gln Gln Gln Val  
 260 265 270  
 Thr Val Asn Thr Glu Glu Leu Lys Gly Thr Glu Val Gln Leu Thr Glu  
 275 280 285  
 Leu Arg Arg Thr Ser Gln Ser Leu Glu Ile Glu Leu Gln Ser His Leu  
 290 295 300  
 Ser Met Lys Glu Ser Leu Glu His Thr Leu Glu Glu Thr Lys Ala Arg  
 305 310 315 320  
 Tyr Ser Ser Gln Leu Ala Asn Leu Gln Ser Leu Leu Ser Ser Leu Glu  
 325 330 335  
 Ala Gln Leu Met Gln Ile Arg Ser Asn Met Glu Arg Gln Asn Asn Glu  
 340 345 350  
 Tyr His Ile Leu Leu Asp Ile Lys Thr Arg Leu Glu Gln Glu Ile Ala  
 355 360 365  
 Thr Tyr Arg Arg Leu Leu Glu Gly Glu Asp Val Lys Thr Thr Glu Tyr  
 370 375 380  
 Gln Leu Ser Thr Leu Glu Glu Arg Asp Ile Lys Lys Thr Arg Lys Ile  
 385 390 395 400  
 Lys Thr Val Val Gln Glu Val Val Asp Gly Lys Val Val Ser Ser Glu  
 405 410 415  
 Val Lys Glu Val Glu Glu Asn Ile  
 420

&lt;210&gt; 398

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 398

Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys Val  
 1 5 10 15  
 Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met Arg  
 20 25 30  
 Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp Thr  
 35 40 45  
 Trp Tyr Lys Glu Gln Ser Ala Met Ser Gln Glu Ala Ala Ser Pro  
 50 55 60



- 217 -

Ala	Thr	Val	Gln	Ser	Arg	Gln	Gly	Asp	Ile	His	Glu	Leu	Lys	Arg	Thr
65					70					75					80
Phe	Gln	Ala	Leu	Glu	Ile	Asp	Leu	Gln	Thr	Gln	Tyr	Ser	Thr	Lys	Ser
			85						90					95	
Ala	Leu	Glu	Asn	Met	Leu	Ser	Glu	Thr	Gln	Ser	Arg	Tyr	Ser	Cys	Lys
			100					105					110		
Leu	Gln	Asp	Met	Gln	Glu	Ile	Ile	Ser	His	Tyr	Glu	Glu	Glu	Leu	Thr
		115					120					125			
Gln	Leu	Arg	His	Glu	Leu	Glu	Arg	Gln	Asn	Asn	Glu	Tyr	Gln	Val	Leu
		130				135					140				
Leu	Gly	Ile	Lys	Thr	His	Leu	Glu	Lys	Glu	Ile	Thr	Thr	Tyr	Arg	Arg
145					150					155					160
Leu	Leu	Glu	Gly	Glu	Ser	Glu	Gly	Thr	Arg	Glu	Glu	Ser	Lys	Ser	Ser
			165					170						175	
Met	Lys	Val	Ser	Ala	Thr	Pro	Lys	Ile	Lys	Ala	Ile	Thr	Gln	Glu	Thr
			180					185					190		
Ile	Asn	Gly	Arg	Leu	Val	Leu	Cys	Gln	Val	Asn	Glu	Ile	Gln	Lys	His
		195					200					205			

Ala

&lt;210&gt; 399

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 399

Met	Asp	Cys	Cys	Ala	Ser	Arg	Gly	Cys	Ser	Val	Pro	Thr	Gly	Pro	Ala
1				5					10					15	
Thr	Thr	Ile	Cys	Ser	Ser	Asp	Lys	Ser	Cys	Arg	Cys	Gly	Val	Cys	Leu
			20					25					30		
Pro	Ser	Thr	Cys	Pro	His	Thr	Val	Trp	Leu	Leu	Glu	Pro	Thr	Cys	Cys
		35					40					45			
Asp	Asn	Cys	Pro	Pro	Pro	Cys	His	Ile	Pro	Gln	Pro	Cys	Val	Pro	Thr
		50				55				60					
Cys	Phe	Leu	Leu	Asn	Ser	Cys	Gln	Pro	Thr	Pro	Gly	Leu	Glu	Thr	Leu
65				70						75					80
Asn	Leu	Thr	Thr	Phe	Thr	Gln	Pro	Cys	Cys	Glu	Pro	Cys	Leu	Pro	Arg
				85					90					95	

Gly Cys

&lt;210&gt; 400

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 400

Met	Asp	Cys	Cys	Ala	Ser	Arg	Ser	Cys	Ser	Val	Pro	Thr	Gly	Pro	Ala
1				5					10					15	
Thr	Thr	Ile	Cys	Ser	Ser	Asp	Lys	Ser	Cys	Arg	Cys	Gly	Val	Cys	Leu
			20					25					30		
Pro	Ser	Thr	Cys	Pro	His	Thr	Val	Trp	Leu	Leu	Glu	Pro	Ile	Cys	Cys
		35					40					45			
Asp	Asn	Cys	Pro	Pro	Pro	Cys	His	Ile	Pro	Gln	Pro	Cys	Val	Pro	Thr
		50				55				60					
Cys	Phe	Leu	Leu	Asn	Ser	Cys	Gln	Pro	Thr	Pro	Gly	Leu	Glu	Thr	Leu
65				70,						75					80

- 218 -

Asn Leu Thr Thr Phe Thr Gln Pro Cys Cys Glu Pro Cys Leu Pro Arg  
                     85                    90                    95  
 Gly Cys

&lt;210&gt; 401

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 401

Met Ser Cys Cys Asp Ser Tyr Leu Gln Gly Cys Cys Ser Val Pro Thr  
 1                    5                    10                    15  
 Gly Leu Ala Thr Thr Ile Cys Pro Ser Asp Ile Ser Cys Gln Cys Glu  
                     20                    25                    30  
 Val Cys Leu Pro Ser Thr Cys Pro His Glu Ile Ser Leu Leu Gln Pro  
                     35                    40                    45  
 Thr Cys Cys Glu Pro Gly Pro Cys Leu Ala Ala Cys Leu Thr Pro Met  
                     50                    55                    60  
 Cys His Pro Val Asp Cys Ser Thr Asn Ala Thr Gln Leu Gln Pro  
 65                    70                    75

&lt;210&gt; 402

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 402

Met Tyr Cys Cys Ala Leu Arg Ser Cys Ser Val Pro Thr Gly Pro Ala  
 1                    5                    10                    15  
 Thr Thr Phe Cys Ser Phe Asp Lys Ser Cys Arg Cys Gly Val Cys Leu  
                     20                    25                    30  
 Pro Ser Thr Cys Pro His Glu Ile Ser Leu Leu Gln Pro Ile Cys Cys  
                     35                    40                    45  
 Asp Thr Cys Pro Pro Pro Cys Cys Lys Pro Asp Thr Tyr Val Pro Thr  
                     50                    55                    60  
 Cys Trp Leu Leu Asn Asn Cys His Pro Thr Pro Gly Leu Ser Gly Ile  
 65                    70                    75                    80  
 Asn Leu Thr Thr Tyr Val Gln Pro Gly Cys Glu Ser Pro Cys Glu Pro  
                     85                    90                    95  
 Arg Cys

&lt;210&gt; 403

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 403

Met Thr Cys Cys Gln Thr Ser Phe Cys Gly Tyr Pro Ser Phe Ser Ile  
 1                    5                    10                    15  
 Ser Gly Thr Cys Gly Ser Ser Cys Cys Gln Pro Ser Cys Cys Glu Thr  
                     20                    25                    30

- 219 -

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Ser Cys Cys Gln Pro Arg Ser Cys Gln Thr Ser Phe Cys Gly Phe Pro
      35      40      45
Ser Phe Ser Thr Ser Gly Thr Cys Ser Ser Ser Cys Cys Gln Pro Ser
      50      55      60
Cys Cys Glu Thr Ser Cys Cys Gln Pro Ser Cys Cys Glu Thr Ser Cys
      65      70      75      80
Cys Gln Pro Ser Cys Cys Gln Ile Ser Ser Cys Gly Thr Gly Cys Gly
      85      90      95
Ile Gly Gly Gly Ile Ser Tyr Gly Gln Glu Gly Ser Ser Gly Ala Val
      100      105      110
Ser Thr Arg Ile Arg Trp Cys Arg Pro Asp Ser Arg Val Glu Gly Thr
      115      120      125
Tyr Leu Pro Pro Cys Cys Val Val Ser Cys Thr Pro Pro Ser Cys Cys
      130      135      140
Gln Leu His His Ala Gln Ala Ser Cys Cys Arg Pro Ser Tyr Cys Gly
      145      150      155      160
Gln Ser Cys Cys Arg Pro Val Cys Cys Cys Glu Pro Thr Cys
      165      170

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&lt;210&gt; 404

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 404

```

Met Thr Cys Cys Gln Thr Ser Phe Cys Gly Tyr Pro Ser Cys Ser Thr
1      5      10      15
Ser Gly Thr Cys Gly Ser Ser Cys Cys Gln Pro Ser Cys Cys Glu Thr
      20      25      30
Ser Cys Cys Gln Pro Ser Cys Cys Gln Thr Ser Phe Cys Gly Phe Pro
      35      40      45
Ser Phe Ser Thr Ser Gly Thr Cys Ser Ser Ser Cys Cys Gln Pro Ser
      50      55      60
Cys Cys Glu Thr Ser Cys Cys Gln Pro Ser Cys Cys Gln Thr Ser Ser
      65      70      75      80
Cys Gly Thr Gly Cys Gly Ile Gly Gly Gly Ile Gly Tyr Gly Gln Glu
      85      90      95
Gly Ser Ser Gly Ala Val Ser Thr Arg Ile Arg Trp Cys Arg Pro Asp
      100      105      110
Cys Arg Val Glu Gly Thr Cys Leu Pro Pro Cys Cys Val Val Ser Cys
      115      120      125
Thr Pro Pro Thr Cys Cys Gln Leu His His Ala Glu Ala Ser Cys Cys
      130      135      140
Arg Pro Ser Tyr Cys Gly Gln Ser Cys Cys Arg Pro Val Cys Cys Cys
      145      150      155      160
Tyr Ser Cys Glu Pro Thr Cys
      165

```

&lt;210&gt; 405

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 405

```

Met Ala Cys Cys Gln Thr Ser Phe Cys Gly Phe Pro Ser Cys Ser Thr
1      5      10      15
Ser Gly Thr Cys Gly Ser Ser Cys Cys Gln Pro Ser Cys Cys Glu Thr
      20      25      30

```

```

Ser Ser Cys Gln Pro Arg Cys Cys Glu Thr Ser Cys Cys Gln Pro Ser
   35           40           45
Cys Cys Gln Thr Ser Phe Cys Gly Phe Pro Ser Phe Ser Thr Gly Gly
   50           55           60
Thr Cys Asp Ser Ser Cys Cys Gln Pro Ser Cys Cys Glu Thr Ser Cys
65           70           75           80
Cys Gln Pro Ser Cys Tyr Gln Thr Ser Ser Cys Gly Thr Gly Cys Gly
   85           90           95
Ile Gly Gly Gly Ile Gly Tyr Gly Gln Glu Gly Ser Ser Gly Ala Val
  100           105           110
Ser Thr Arg Ile Arg Trp Cys Arg Pro Asp Cys Arg Val Glu Gly Thr
  115           120           125
Cys Leu Pro Pro Cys Cys Val Val Ser Cys Thr Pro Pro Ser Cys Cys
  130           135           140
Gln Leu His His Ala Glu Ala Ser Cys Cys Arg Pro Ser Tyr Cys Gly
145           150           155           160
Gln Ser Cys Cys Arg Pro Val Cys Cys Cys Tyr Cys Ser Glu Pro Thr
           165           170           175
Cys

```

&lt;210&gt; 406

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 406

```

Val Thr Cys Val Pro Arg Cys Thr Arg Pro Ile Cys Glu Pro Cys Arg
1           5           10           15
Arg Pro Val Cys Asp Pro Cys Ser Leu Gln Glu Gly Cys Cys Arg
20           25           30
Pro Ile Thr Cys Cys Pro Ser Ser Cys Thr Ala Val Val Cys Arg Pro
35           40           45
Cys Cys Trp Ala Thr Thr Cys Cys Gln Pro Val Ser Val Gln Ser Pro
50           55           60
Cys Cys Arg Pro Pro Cys Gly Gln Pro Thr Pro Cys Ser Thr Thr Cys
65           70           75           80
Arg Thr Ser Ser Cys
           85

```

&lt;210&gt; 407

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 407

```

Met Thr Gly Ser Cys Cys Gly Ser Thr Leu Ser Ser Leu Ser Tyr Gly
1           5           10           15
Gly Gly Cys Cys Gln Pro Cys Cys Cys Arg Asp Pro Cys Cys Arg
20           25           30
Pro Val Thr Cys Gln Thr Thr Val Cys Arg Pro Val Thr Cys Val Pro
35           40           45
Arg Cys Thr Arg Pro Ile Cys Glu Pro Cys Arg Arg Pro Val Cys Cys
50           55           60
Asp Pro Cys Ser Leu Gln Glu Gly Cys Cys Arg Pro Ile Thr Cys Cys
65           70           75           80
Pro Ser Ser Cys Thr Ala Val Val Cys Arg Pro Cys Cys Trp Ala Thr
           85           90           95

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- 221 -

Thr Cys Cys Gln Pro Val Ser Val Gln Ser Pro Cys Cys Arg Pro Pro  
 100 105 110  
 Cys Gly Gln Pro Thr Pro Cys Ser Thr Thr Cys Arg Thr Ser Ser Cys  
 115 120 125  
 <210> 408  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 408  
 Met Glu Thr His Cys Thr Gly Arg Ser Ala Ser Phe Cys Ser Ser Ser  
 1 5 10 15  
 Ala Ile Leu Ile  
 20  
 <210> 409  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 409  
 Met Val Ser Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly  
 1 5 10 15  
 Gln Val Leu Cys Gln Glu Thr Cys Cys Arg Pro Ser Cys Cys Gln Thr  
 20 25 30  
 Thr Cys Cys Arg Thr Thr Cys Tyr Arg Pro Ser Cys Cys Val Ser Ser  
 35 40 45  
 Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys  
 50 55 60  
 Cys Arg Pro Ser Cys Cys Glu Thr Thr Cys Cys His Pro Arg Cys Cys  
 65 70 75 80  
 Ile Ser Ser Cys Cys Arg Pro Ser Cys Cys Met Ser Ser Cys Cys Lys  
 85 90 95  
 Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Arg Pro  
 100 105 110  
 Ser Cys Cys Ile Ser Ser Cys Cys Arg Pro Ser Cys Cys Val Ser Arg  
 115 120 125  
 Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys  
 130 135 140  
 Cys Arg Pro Ser Cys Cys Ile Ser Ser Cys Cys Arg Pro Ser Cys Cys  
 145 150 155 160  
 Glu Ser Ser Cys Cys Arg Pro Cys Cys Cys Arg Pro Cys Cys Cys Leu  
 165 170 175  
 Arg Pro Val Cys Gly Arg Val Ser Cys His Thr Thr Cys Tyr Arg Pro  
 180 185 190  
 Thr Cys Val Ile Ser Thr Cys Pro Arg Pro Leu Cys Cys Ala Ser Ser  
 195 200 205  
 Cys Cys  
 210  
 <210> 410  
 <211> 195  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 410

Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser His Gln Gly Cys Gly  
 1 5 10 15  
 Gln Asp Leu Cys Gln Glu Thr Cys Cys Arg Pro Ser Cys Cys Glu Thr  
 20 25 30  
 Thr Cys Cys Arg Thr Thr Tyr Cys Arg Pro Ser Cys Cys Val Ser Ser  
 35 40 45  
 Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys  
 50 55 60  
 Cys Arg Pro Arg Cys Cys Ile Ser Ser Cys Cys Arg Pro Ser Cys Cys  
 65 70 75 80  
 Val Ser Ser Cys Cys Lys Pro Gln Cys Cys Gln Ser Met Cys Cys Gln  
 85 90 95  
 Pro Thr Cys Cys Arg Pro Arg Cys Cys Ile Ser Ser Cys Cys Arg Pro  
 100 105 110  
 Ser Cys Cys Val Ser Ser Cys Cys Arg Pro Gln Cys Cys Gln Ser Val  
 115 120 125  
 Cys Cys Gln Pro Thr Cys Cys His Pro Ser Cys Ser Ile Ser Ser Cys  
 130 135 140  
 Cys Arg Pro Ser Cys Cys Glu Ser Ser Cys Cys Arg Pro Cys Cys Cys  
 145 150 155 160  
 Leu Arg Pro Val Cys Gly Gly Val Ser Cys His Thr Thr Cys Tyr Arg  
 165 170 175  
 Pro Thr Cys Val Ile Ser Ser Cys Pro Arg Pro Leu Cys Cys Ala Ser  
 180 185 190  
 Ser Cys Cys  
 195

&lt;210&gt; 411

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly  
 1 5 10 15  
 Leu Glu Asn Cys Cys Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg  
 20 25 30  
 Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Ser Cys Cys Arg Pro  
 35 40 45  
 Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Arg Pro Ser  
 50 55 60  
 Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr Cys Cys Arg Pro Ser Cys  
 65 70 75 80  
 Cys Val Ser Ser Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys Cys  
 85 90 95  
 Gln Pro Thr Cys Cys Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg  
 100 105 110  
 Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Ser Cys Cys Arg Pro  
 115 120 125  
 Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Arg Pro Ser  
 130 135 140  
 Cys Cys Ile Ser Ser Ser Cys Cys Pro Ser Cys Cys Glu Ser Ser Cys  
 145 150 155 160  
 Cys Arg Pro Cys Cys Cys Leu Arg Pro Val Cys Gly Arg Val Ser Cys  
 165 170 175  
 His Thr Thr Cys Tyr Arg Pro Thr Cys Val Ile Ser Thr Cys Pro Arg  
 180 185 190  
 Pro Leu Cys Cys Ala Ser Ser Cys Cys  
 195 200

&lt;210&gt; 412

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 412

```

Met Val Ser Ser Cys Cys Gly Ser Val Ser Ser Glu Gln Ser Cys Gly
1      5      10      15
Leu Glu Asn Cys Cys Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg
      20      25      30
Thr Thr Cys Cys Arg Pro Ser Cys Cys Lys Pro Gln Cys Cys Gln Ser
      35      40      45
Val Cys Tyr Gln Pro Thr Cys Cys His Pro Ser Cys Cys Ile Ser Ser
      50      55      60
Cys Cys His Pro Tyr Cys Cys Glu Ser Ser Cys Cys Arg Pro Cys Cys
65      70      75      80
Cys Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr Cys Cys
      85      90      95
Arg Thr Thr Cys Cys Cys Pro Ser Cys Cys Val Ser Ser Cys Cys Arg
      100      105      110
Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Arg Pro
      115      120      125
Ser Cys Cys Ile Ser Ser Cys Cys His Pro Ser Cys Cys Glu Ser Ser
      130      135      140
Cys Cys Arg Pro Cys Cys Cys Val Arg Pro Val Cys Gly Arg Val Ser
145      150      155      160
Cys His Thr Thr Cys Tyr Arg Pro Thr Cys Val Ile Ser Thr Cys Pro
      165      170      175
Arg Pro Leu Cys Cys Ala Ser Ser Cys Cys
      180      185

```

&lt;210&gt; 413

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 413

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Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly
1      5      10      15
Leu Glu Asn Cys Cys Arg Pro Ser Tyr Cys Gln Thr Thr Cys Cys Arg
      20      25      30
Thr Thr Cys Cys Arg Pro Ser Cys Cys Arg Pro Ser Cys Cys Arg Pro
      35      40      45
Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Cys Pro Ser
      50      55      60
Tyr Cys Val Ser Ser Cys Cys Arg Pro Gln Cys Cys Gln Thr Thr Arg
65      70      75      80
Cys Arg Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Arg Cys Tyr
      85      90      95
Arg Pro His Cys Gly Gln Ser Leu Cys Cys
      100      105

```

&lt;210&gt; 414

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 414

```

Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly
1      5      10      15
Leu Glu Asn Cys Cys Arg Pro Ser Tyr Cys Gln Thr Thr Cys Cys Arg
20      25      30
Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Ser Cys Cys Arg Pro
35      40      45
Gln Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr Cys Cys His Pro Ser
50      55      60
Cys Cys Val Ser Ser Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys
65      70      75      80
Cys Gln Pro Thr Cys Cys Arg Pro Gln Cys Cys Gln Thr Thr Cys Cys
85      90      95
Arg Thr Thr Cys Cys Arg Pro Ser Cys Cys Arg Pro Gln Cys Cys Gln
100     105     110
Ser Val Cys Cys Gln Pro Thr Cys Cys Cys Pro Ser Tyr Cys Val Ser
115     120     125
Ser Cys Cys Arg Pro Gln Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr
130     135     140
Cys Cys Arg Pro Ser Cys Cys Val Ser Arg Cys Tyr Arg Pro His Cys
145     150     155     160
Gly Gln Ser Leu Cys Cys
165

```

&lt;210&gt; 415

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 415

```

Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly
1      5      10      15
Leu Glu Asn Cys Cys Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg
20      25      30
Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Ser Cys Cys Arg Pro
35      40      45
Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys Cys Ser Pro Ser
50      55      60
Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr Cys Cys Arg Pro Ser Cys
65      70      75      80
Cys Val Ser Ser Cys Phe Arg Pro Gln Cys Cys Gln Ser Val Cys Cys
85      90      95
Gln Pro Thr Cys Cys Arg Pro Ser Cys Gly Gln Thr Thr Cys Cys Arg
100     105     110
Thr Thr Cys Tyr Arg Pro Ser Cys Cys Val Ser Thr Cys Cys Arg Pro
115     120     125
Thr Cys Ser Ser Gly Ser Cys Cys
130     135

```

&lt;210&gt; 416

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



<400> 416  
 Met Val Asn Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Asp  
 1 5 10 15  
 Gln Gly Leu Cys Gln Glu Thr Cys Cys Arg Pro Ser Cys Cys Gln Thr  
 20 25 30  
 Thr Cys Cys Cys Pro Ser Cys Val Val Ser Ser Cys Cys Arg Pro Ser  
 35 40 45  
 Cys Ser Gln Thr Thr Cys Cys Gln Thr Thr Cys Cys Arg Pro Ser Cys  
 50 55 60  
 Cys Arg Pro Val Cys Cys Gln Thr Thr Cys Arg Pro Ser Cys Gly Val  
 65 70 75 80  
 Ser Ser Cys Cys Arg Pro Leu Cys Cys Gln Thr Thr Cys Arg Pro Ser  
 85 90 95  
 Cys Gly Val Ser Ser Cys Cys Arg Pro Leu Cys Cys Gln Thr Thr Cys  
 100 105 110  
 Cys Arg Thr Thr Cys Cys Arg Pro Ser Cys Cys Gly Ser Ser Cys  
 115 120 125  
 <210> 417  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 417  
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr  
 1 5 10 15  
 Thr Cys Cys Arg Thr Thr Cys Trp Lys Pro Thr Thr Val Thr Thr Cys  
 20 25 30  
 Ser Ser Thr Pro Cys Cys Gln Pro Ala Cys Cys Val Ser Ser Cys Cys  
 35 40 45  
 Gln Pro Cys Cys Arg Pro Thr Cys Cys Gln Asn Thr Cys Cys Arg Thr  
 50 55 60  
 Thr Cys Cys Gln Pro Thr Cys Val Thr Ser Cys Cys Gln Pro Ser Cys  
 65 70 75 80  
 Cys Ser Thr Pro Cys Cys Gln Pro Thr Cys Cys Gly Ser Ser Cys Cys  
 85 90 95  
 Gly Gln Thr Ser Cys Gly Ser Ser Cys Gly Gln Ser Ser Ser Cys Ala  
 100 105 110  
 Pro Val Tyr Cys Arg Arg Thr Cys Tyr Tyr Pro Thr Thr Val Cys Leu  
 115 120 125  
 Pro Gly Cys Leu Asn Gln Ser Cys Gly Ser Asn Cys Cys Gln Pro Cys  
 130 135 140  
 Cys Arg Pro Ala Cys Cys Glu Thr Thr Cys Cys Arg Thr Thr Cys Phe  
 145 150 155 160  
 Gln Pro Thr Cys Val Ser Ser Cys Cys Gln Pro Ser Cys Cys  
 165 170  
 <210> 418  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 418  
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr  
 1 5 10 15  
 Thr Cys Trp Gln Pro Thr Thr Val Thr Thr Cys Ser Ser Thr Pro Cys  
 20 25 30

Cys Gln Pro Ser Cys Cys Val Ser Ser Cys Cys Gln Pro Cys Cys His  
                   35                  40                  45  
 Pro Thr Cys Cys Gln Asn Thr Cys Cys Arg Thr Thr Cys Cys Gln Pro  
           50                  55                  60  
 Ile Cys Val Thr Ser Cys Cys Gln Pro Ser Cys Cys Ser Thr Pro Cys  
   65                  70                  75                  80  
 Cys Gln Pro Thr Cys Cys Gly Ser Ser Cys Gly Gln Ser Ser Ser Cys  
                   85                  90                  95  
 Ala Pro Val Tyr Cys Arg Arg Thr Cys Tyr His Pro Thr Ser Val Cys  
                  100                 105                 110  
 Leu Pro Gly Cys Leu Asn Gln Ser Cys Gly Ser Asn Cys Cys Gln Pro  
          115                 120  
 Cys Cys Arg Pro Ala Cys Cys Glu Thr Thr Cys Cys Arg Thr Thr Cys  
          130                 135                 140  
 Phe Gln Pro Thr Cys Val Tyr Ser Cys Cys Gln Pro Ser Cys Cys  
  145                 150                 155  
 <210> 419  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 419  
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr  
   1                  5                 10                 15  
 Thr Cys Trp Lys Pro Thr Thr Val Thr Cys Ser Ser Thr Pro Cys  
          20                 25                 30  
 Cys Gln Pro Ser Cys Cys Val Ser Ser Cys Cys Gln Pro Cys Cys Arg  
          35                 40                 45  
 Pro Thr Cys Cys Gln Asn Thr Cys Cys Gln Pro Ile Cys Val Thr Ser  
   50                 55                 60  
 Cys Cys Gln Pro Ser Cys Cys Ser Thr Pro Cys Cys Gln Pro Thr Cys  
  65                 70                 75                 80  
 Cys Gly Gln Thr Ser Cys Gly Ser Ser Cys Gly Gln Ser Ser Ser Cys  
                  85                 90                 95  
 Ala Pro Val Tyr Cys Arg Arg Thr Cys Tyr His Pro Thr Thr Val Cys  
                  100                 105                 110  
 Leu Pro Gly Cys Leu Asn Gln Ser Cys Gly Ser Ser Cys Cys Gln Pro  
          115                 120  
 Cys Cys Arg Pro Ala Cys Cys Glu Thr Thr Cys Cys Arg Thr Thr Cys  
          130                 135                 140  
 Phe Gln Pro Thr Cys Val Tyr Ser Cys Cys Gln Pro Ser Cys Cys  
  145                 150                 155  
 <210> 420  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 420  
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr  
   1                  5                 10                 15  
 Thr Cys Cys Arg Thr Thr Cys Trp Lys Pro Thr Thr Val Thr Thr Cys  
          20                 25                 30  
 Ser Ser Thr Pro Cys Cys Gln Pro Ser Cys Cys Val Ser Ser Cys Cys  
          35                 40                 45  
 Gln Pro Cys Cys Arg Pro Ala Cys Cys Gln Asn Thr Cys Cys Arg Thr  
  50                 55                 60

- 227 -

Thr Cys Cys Gln Pro Thr Cys Leu Ser Ser Cys Cys Gly Gln Thr Ser  
 65 70 75 80  
 Cys Gly Ser Ser Cys Gly Gln Ser Ser Ser Cys Ala Pro Val Tyr Cys  
 85 90 95  
 Arg Arg Thr Cys Tyr Tyr Pro Thr Thr Val Cys Leu Pro Gly Cys Leu  
 100 105 110  
 Asn Gln Ser Cys Gly Ser Ser Cys Gln Pro Cys Cys Arg Pro Ala  
 115 120 125  
 Cys Cys Glu Thr Thr Cys Cys Arg Thr Thr Cys Phe Gln Pro Thr Cys  
 130 135 140  
 Val Ser Ser Cys Cys Gln Pro Ser Cys Cys  
 145 150  
 <210> 421  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 421  
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr  
 1 5 10 15  
 Thr Cys Cys Arg Thr Thr Cys Trp Lys Pro Thr Thr Val Thr Thr Cys  
 20 25 30  
 Ser Ser Thr Pro Cys Cys Gln Pro Ser Cys Cys Val Ser Ser Cys Cys  
 35 40 45  
 Gln Pro Cys Cys Arg Pro Thr Cys Cys Gln Asn Thr Cys Cys Gln Pro  
 50 55 60  
 Thr Cys Val Thr Ser Cys Cys Gln Pro Ser Cys Cys Ser Thr Pro Cys  
 65 70 75 80  
 Cys Gln Pro Thr Cys Cys Gly Ser Ser Cys Asp Gln Ser Ser Ser Cys  
 85 90 95  
 Ala Pro Val Tyr Cys Arg Arg Thr Cys Tyr Tyr Pro Thr Thr Val Cys  
 100 105 110  
 Leu Pro Gly Cys Leu Asn Gln Ser Cys Gly Ser Asn Cys Cys Gln Pro  
 115 120 125  
 Cys Cys Arg Pro Ala Cys Cys Glu Thr Thr Cys Phe Gln Pro Thr Cys  
 130 135 140  
 Val Ser Ser Cys Cys Gln Pro Phe Cys Cys  
 145 150  
 <210> 422  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 422  
 Met Leu Gln Asp His Leu Leu Gln Asp Asn Leu Leu Glu Ala His His  
 1 5 10 15  
 Cys Asp His Leu Gln Gln His Ile Leu Leu Pro Ala Leu Leu Cys  
 20 25 30  
 Val Gln Leu Leu Pro Ala Leu Leu Pro Pro Asn Leu Leu Ser Lys His  
 35 40 45  
 Leu Leu Gln Asp His Leu Leu Pro Ala His Leu Cys Asp Gln Leu Leu  
 50 55 60  
 Pro Ala Phe Leu Leu Gln His Thr Leu Leu Thr Ala His Leu Leu Trp  
 65 70 75 80  
 Val Gln Leu Leu Trp Pro Asn His Leu Trp Val Gln Leu Leu Pro Ala  
 85 90 95

```

Gln Leu Leu Cys Thr His Leu Leu Gln Glu Asn Leu Leu Pro Pro His
      100      105      110
Glu Cys Leu Pro Ala Trp Leu Pro Lys Ser Glu Leu Trp Leu Gln Leu
      115      120      125
Leu Pro Ala Leu Leu Pro Pro Ser Leu Leu
      130      135
<210> 423
<211> 409
<212> PRT
<213> Homo sapiens

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<400>	423														
Met 1	Ser	Gly	Ser	Cys 5	Ser	Ser	Arg	Lys	Cys 10	Phe	Ser	Val	Pro	Ala 15	Thr
Ser	Leu	Cys	Ser 20	Thr	Glu	Val	Ser	Cys 25	Gly	Gly	Pro	Ile	Cys 30	Leu	Pro
Ser	Ser	Cys 35	Gln	Ser	Gln	Thr	Trp 40	Gln	Leu	Val	Thr	Cys 45	Gln	Asp	Ser
Cys	Gly 50	Ser	Ser	Ser	Cys	Gly 55	Pro	Gln	Cys	Arg	Gln 60	Pro	Ser	Cys	Pro
Val 65	Ser	Ser	Cys	Ala	Gln 70	Pro	Leu	Cys	Cys	Asp 75	Pro	Val	Ile	Cys	Glu 80
Pro	Ser	Cys	Ser	Val 85	Ser	Ser	Gly	Cys 90	Gln	Pro	Val	Cys	Cys	Glu 95	Ala
Thr	Thr	Cys	Glu 100	Pro	Ser	Cys	Ser	Val 105	Ser	Asn	Cys	Tyr	Gln 110	Pro	Val
Cys	Phe	Glu 115	Ala	Thr	Ile	Cys	Glu 120	Pro	Ser	Cys	Ser	Val	Ser 125	Asn	Cys
Cys	Gln	Pro	Val	Cys	Phe	Glu 135	Ala	Thr	Val	Cys	Glu 140	Pro	Ser	Cys	Ser
Val 145	Ser	Ser	Cys	Ala	Gln 150	Pro	Val	Cys	Cys	Glu 155	Pro	Ala	Ile	Cys	Glu 160
Pro	Ser	Cys	Ser	Val 165	Ser	Ser	Cys	Cys	Gln 170	Pro	Val	Gly	Ser	Glu 175	Ala
Thr	Ser	Cys	Gln 180	Pro	Val	Leu	Cys	Val 185	Pro	Thr	Ser	Cys	Gln 190	Pro	Val
Leu	Cys	Lys 195	Ser	Ser	Cys	Cys	Gln 200	Pro	Val	Val	Cys	Glu 205	Pro	Ser	Cys
Cys	Ser	Ala	Val	Cys	Thr	Leu 215	Pro	Ser	Ser	Cys	Gln 220	Pro	Val	Val	Cys
Glu 225	Pro	Ser	Cys	Cys	Gln 230	Pro	Val	Cys	Pro	Thr 235	Pro	Thr	Cys	Ser	Val 240
Thr	Ser	Ser	Cys	Gln 245	Ala	Val	Cys	Cys	Asp 250	Pro	Ser	Pro	Trp	Ser	Ser 255
Ala	Ser	Ala	Ile 260	Cys	Arg	Pro	Thr	Cys 265	Pro	Arg	Thr	Phe	Tyr 270	Ile	Pro
Ser	Ser	Ser	Lys 275	Arg	Pro	Cys	Ser 280	Ala	Thr	Ile	Ser	Tyr 285	Arg	Pro	Val
Ser	Arg 290	Pro	Ile	Cys	Arg	Pro 295	Ile	Cys	Ser	Gly	Leu 300	Thr	Tyr	Arg	
Gln 305	Pro	Tyr	Met	Thr	Ser	Ile 310	Ser	Tyr	Arg	Pro 315	Ala	Cys	Tyr	Arg	Pro 320
Cys	Tyr	Ser	Ile	Leu 325	Arg	Arg	Pro	Ala	Cys 330	Val	Thr	Ser	Tyr	Ser 335	Cys
Arg	Pro	Val	Tyr 340	Phe	Arg	Pro	Ser	Cys 345	Thr	Glu	Ser	Asp	Ser 350	Cys	Lys
Arg	Asp	Cys 355	Lys	Lys	Ser	Thr	Ser 360	Ser	Gln	Leu	Asp	Cys 365	Val	Asp	Thr
Thr	Pro	Cys	Lys	Val	Asp	Val 375	Ser	Glu	Glu	Ala	Pro 380	Cys	Gln	Pro	Thr

Glu Ala Lys Pro Ile Ser Pro Thr Thr Arg Glu Ala Ala Ala Ala Gln  
 385 390 395 400  
 Pro Ala Ala Ser Lys Pro Ala Asn Cys  
 405

<210> 424

<211> 105

<212> PRT

<213> Homo sapiens

<400> 424

Met Gly Cys Cys Pro Gly Asp Cys Phe Thr Cys Cys Thr Gln Glu Gln  
 1 5 10 15  
 Asn Cys Cys Glu Glu Cys Cys Cys Gln Pro Gly Cys Cys Gly Cys Cys  
 20 25 30  
 Gly Ser Cys Cys Gly Cys Gly Gly Ser Gly Cys Gly Gly Ser Gly Cys  
 35 40 45  
 Gly Gly Ser Cys Cys Gly Ser Ser Cys Cys Gly Ser Gly Cys Gly Gly  
 50 55 60  
 Cys Gly Gly Cys Gly Gly Cys Gly Gly Cys Cys Gly Ser Ser Cys  
 65 70 75 80  
 Cys Gly Ser Ser Cys Cys Gly Ser Gly Cys Cys Gly Pro Val Cys Cys  
 85 90 95  
 Gln Pro Thr Pro Ile Cys Asp Thr Lys  
 100 105

<210> 425

<211> 404

<212> PRT

<213> Homo sapiens

<400> 425

Met Ser Tyr Ser Cys Gly Leu Pro Ser Leu Ser Cys Arg Thr Ser Cys  
 1 5 10 15  
 Ser Ser Arg Pro Cys Val Pro Pro Ser Cys His Gly Cys Thr Leu Pro  
 20 25 30  
 Gly Ala Cys Asn Ile Pro Ala Asn Val Ser Asn Cys Asn Trp Phe Cys  
 35 40 45  
 Glu Gly Ser Phe Asn Gly Ser Glu Lys Glu Thr Met Gln Phe Leu Asn  
 50 55 60  
 Asp Arg Leu Ala Ser Tyr Leu Glu Lys Val Arg Gln Leu Glu Arg Asp  
 65 70 75 80  
 Asn Ala Glu Leu Glu Asn Leu Ile Arg Glu Arg Ser Gln Gln Gln Glu  
 85 90 95  
 Pro Leu Val Cys Ala Ser Tyr Gln Ser Tyr Phe Lys Thr Ile Glu Glu  
 100 105 110  
 Leu Gln Gln Lys Ile Leu Cys Ser Lys Ser Glu Asn Ala Arg Leu Val  
 115 120 125  
 Val Gln Ile Asp Asn Ala Lys Leu Ala Ser Asp Asp Phe Arg Thr Lys  
 130 135 140  
 Tyr Glu Thr Glu Leu Ser Leu Arg Gln Leu Val Glu Ser Asp Ile Asn  
 145 150 155 160  
 Gly Leu Arg Arg Ile Leu Asp Glu Leu Thr Leu Cys Arg Ser Asp Leu  
 165 170 175  
 Glu Ala Gln Val Glu Ser Leu Lys Glu Glu Leu Leu Cys Leu Lys Gln  
 180 185 190  
 Asn His Glu Gln Glu Val Asn Thr Leu Arg Cys Gln Leu Gly Asp Arg  
 195 200 205

Leu Asn Val Glu Val Asp Ala Ala Pro Thr Val Asp Leu Asn Gln Val  
 210 215 220  
 Leu Asn Glu Thr Arg Ser Gln Tyr Glu Ala Leu Val Glu Thr Asn Arg  
 225 230 235 240  
 Arg Glu Val Glu Gln Trp Phe Ala Thr Gln Thr Glu Glu Leu Asn Lys  
 245 250 255  
 Gln Val Val Ser Ser Ser Glu Gln Leu Gln Ser Tyr Gln Ala Glu Ile  
 260 265 270  
 Ile Glu Leu Arg Arg Thr Val Asn Ala Leu Glu Ile Glu Leu Gln Ala  
 275 280 285  
 Gln His Asn Leu Arg Asp Ser Leu Glu Asn Thr Leu Thr Glu Ser Glu  
 290 295 300  
 Ala Arg Tyr Ser Ser Gln Leu Ser Gln Val Gln Arg Leu Ile Thr Asn  
 305 310 315 320  
 Val Glu Ser Gln Leu Ala Glu Ile Arg Ser Asp Leu Glu Arg Gln Asn  
 325 330 335  
 Gln Glu Tyr Gln Val Leu Leu Asp Val Arg Ala Arg Leu Glu Cys Glu  
 340 345 350  
 Ile Asn Thr Tyr Arg Ser Leu Leu Glu Ser Glu Asp Cys Lys Leu Pro  
 355 360 365  
 Ser Asn Pro Cys Ala Thr Thr Asn Ala Cys Asp Lys Ser Thr Gly Pro  
 370 375 380  
 Cys Ile Ser Asn Pro Cys Gly Leu Arg Ala Arg Cys Gly Pro Cys Asn  
 385 390 395 400  
 Thr Phe Gly Tyr

&lt;210&gt; 426

&lt;211&gt; 404

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 426  
 Met Pro Tyr Asn Phe Cys Leu Pro Ser Leu Ser Cys Arg Thr Ser Cys  
 1 5 10 15  
 Ser Ser Arg Pro Cys Val Pro Pro Ser Cys His Gly Tyr Thr Leu Pro  
 20 25 30  
 Gly Ala Cys Asn Ile Pro Ala Asn Val Ser Asn Cys Asn Trp Phe Cys  
 35 40 45  
 Glu Gly Ser Phe Asn Gly Ser Glu Lys Glu Thr Met Gln Phe Leu Asn  
 50 55 60  
 Asp Arg Leu Ala Ser Tyr Leu Glu Lys Val Arg Gln Leu Glu Arg Asp  
 65 70 75 80  
 Asn Ala Glu Leu Glu Asn Leu Ile Arg Glu Arg Ser Gln Gln Gln Glu  
 85 90 95  
 Pro Leu Leu Cys Pro Ser Tyr Gln Ser Tyr Phe Lys Thr Ile Glu Glu  
 100 105 110  
 Leu Gln Gln Lys Ile Leu Cys Ser Lys Ser Glu Asn Ala Arg Leu Val  
 115 120 125  
 Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp Asp Phe Arg Thr Lys  
 130 135 140  
 Tyr Gln Thr Glu Gln Ser Leu Arg Gln Leu Val Glu Ser Asp Ile Asn  
 145 150 155 160  
 Ser Leu Arg Arg Ile Leu Asp Glu Leu Thr Leu Cys Arg Ser Asp Leu  
 165 170 175  
 Glu Ala Gln Met Glu Ser Leu Lys Glu Glu Leu Leu Ser Leu Lys Gln  
 180 185 190  
 Asn His Glu Gln Glu Val Asn Thr Leu Arg Cys Gln Leu Gly Asp Arg  
 195 200 205  
 Leu Asn Val Glu Val Asp Ala Ala Pro Ala Val Asp Leu Asn Gln Val  
 210 215 220

Leu Asn Glu Thr Arg Asn Gln Tyr Glu Ala Leu Val Glu Thr Asn Arg  
 225 230 235 240  
 Arg Glu Val Glu Gln Trp Phe Ala Thr Gln Thr Glu Glu Leu Asn Lys  
 245 250 255  
 Gln Val Val Ser Ser Ser Glu Gln Leu Gln Ser Tyr Gln Ala Glu Ile  
 260 265 270  
 Ile Glu Leu Arg Arg Thr Val Asn Ala Leu Glu Ile Glu Leu Gln Ala  
 275 280 285  
 Gln His Asn Leu Arg Tyr Ser Leu Glu Asn Thr Leu Thr Glu Ser Glu  
 290 295 300  
 Ala Arg Tyr Ser Ser Gln Leu Ser Gln Val Gln Ser Leu Ile Thr Asn  
 305 310 315 320  
 Val Glu Ser Gln Leu Ala Glu Ile Arg Ser Asp Leu Glu Arg Gln Asn  
 325 330 335  
 Gln Glu Tyr Gln Val Leu Leu Asp Val Arg Ala Arg Leu Glu Cys Glu  
 340 345 350  
 Ile Asn Thr Tyr Arg Ser Leu Leu Glu Ser Glu Asp Cys Lys Leu Pro  
 355 360 365  
 Ser Asn Pro Cys Ala Thr Thr Asn Ala Cys Glu Lys Pro Ile Gly Ser  
 370 375 380  
 Cys Val Thr Asn Pro Cys Gly Pro Arg Ser Arg Cys Gly Pro Cys Asn  
 385 390 395 400  
 Thr Phe Gly Tyr

&lt;210&gt; 427

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 427

Met Leu Tyr Ala Lys Pro Pro Pro Thr Ile Asn Gly Ile Lys Gly Leu  
 1 5 10 15  
 Gln Arg Lys Glu Arg Leu Lys Pro Ala His Ile His Leu Gln Gln Leu  
 20 25 30  
 Thr Cys Phe Ser Ile Thr Cys Ser Thr Met Ser Tyr Ser Cys Cys  
 35 40 45  
 Leu Pro Ser Leu Gly Cys Arg Thr Ser Cys Ser Ser Arg Pro Cys Val  
 50 55 60  
 Pro Pro Ser Cys His Gly Tyr Thr Leu Pro Gly Ala Cys Asn Ile Pro  
 65 70 75 80  
 Ala Asn Val Ser Asn Cys Asn Trp Phe Cys Glu Gly Ser Phe Asn Gly  
 85 90 95  
 Ser Glu Lys Glu Thr Met Gln Phe Leu Asn Asp Arg Leu Ala Ser Tyr  
 100 105 110  
 Leu Glu Lys Val Arg Gln Leu Glu Arg Asp Asn Ala Glu Leu Glu Lys  
 115 120 125  
 Leu Ile Gln Glu Arg Ser Gln Gln Gln Glu Pro Leu Leu Cys Pro Ser  
 130 135 140  
 Tyr Gln Ser Tyr Phe Lys Thr Ile Glu Glu Leu Gln Gln Lys Ile Leu  
 145 150 155 160  
 Cys Ala Lys Ala Glu Asn Ala Arg Leu Val Val Asn Ile Asp Asn Ala  
 165 170 175  
 Lys Leu Ala Ser Asp Asp Phe Arg Ser Lys Tyr Gln Thr Glu Gln Ser  
 180 185 190  
 Leu Arg Leu Leu Val Glu Ser Asp Ile Asn Ser Ile Arg Arg Ile Leu  
 195 200 205  
 Asp Glu Leu Thr Leu Cys Lys Ser Asp Leu Glu Ser Gln Val Glu Ser  
 210 215 220  
 Leu Arg Glu Glu Leu Ile Cys Leu Lys Lys Asn His Glu Glu Glu Val  
 225 230 235 240

Asn Thr Leu Arg Ser Gln Leu Gly Asp Arg Leu Asn Val Glu Val Asp  
 245 250 255  
 Thr Ala Pro Thr Val Asp Leu Asn Gln Val Leu Asn Glu Thr Arg Ser  
 260 265 270  
 Gln Tyr Glu Ala Leu Val Glu Ile Asn Arg Arg Glu Val Glu Gln Trp  
 275 280 285  
 Phe Ala Thr Gln Thr Glu Glu Leu Asn Lys Gln Val Val Ser Ser Ser  
 290 295 300  
 Glu Gln Leu Gln Ser Cys Gln Ala Glu Ile Ile Glu Leu Arg Arg Thr  
 305 310 315 320  
 Val Asn Ala Leu Glu Ile Glu Leu Gln Ala Gln His Asn Leu Arg Asp  
 325 330 335  
 Ser Leu Glu Asn Thr Leu Thr Glu Ser Glu Ala His Tyr Ser Ser Gln  
 340 345 350  
 Leu Ser Gln Val Gln Ser Leu Ile Thr Asn Val Glu Ser Gln Leu Ala  
 355 360 365  
 Glu Ile Arg Cys Asp Leu Glu Arg Gln Asn Gln Glu Tyr Gln Val Leu  
 370 375 380  
 Leu Asp Val Arg Ala Arg Leu Glu Cys Glu Ile Asn Thr Tyr Arg Ser  
 385 390 395 400  
 Leu Leu Glu Ser Glu Asp Cys Lys Leu Pro Cys Asn Pro Cys Ala Thr  
 405 410 415  
 Thr Asn Ala Ser Gly Asn Ser Cys Gly Pro Cys Gly Thr Ser Gln Lys  
 420 425 430  
 Gly Cys Cys Asn  
 435  
 <210> 428  
 <211> 416  
 <212> PRT  
 <213> Homo sapiens

<400> 428  
 Met Pro Tyr Asn Phe Cys Leu Pro Ser Leu Ser Cys Arg Thr Ser Cys  
 1 5 10 15  
 Ser Ser Arg Pro Cys Val Pro Pro Ser Cys His Ser Cys Thr Leu Pro  
 20 25 30  
 Gly Ala Cys Asn Ile Pro Ala Asn Val Ser Asn Cys Asn Trp Phe Cys  
 35 40 45  
 Glu Gly Ser Phe Asn Gly Ser Glu Lys Glu Thr Met Gln Phe Leu Asn  
 50 55 60  
 Asp Arg Leu Ala Ser Tyr Leu Glu Lys Val Arg Gln Leu Glu Arg Asp  
 65 70 75 80  
 Asn Ala Glu Leu Glu Asn Leu Ile Arg Glu Arg Ser Gln Gln Gln Glu  
 85 90 95  
 Pro Leu Leu Cys Pro Ser Tyr Gln Ser Tyr Phe Lys Thr Ile Glu Glu  
 100 105 110  
 Leu Gln Gln Lys Ile Leu Cys Thr Lys Ser Glu Asn Ala Arg Leu Val  
 115 120 125  
 Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp Asp Phe Arg Thr Lys  
 130 135 140  
 Tyr Gln Thr Glu Leu Ser Leu Arg Gln Leu Val Glu Ser Asp Ile Asn  
 145 150 155 160  
 Gly Leu Arg Arg Ile Leu Asp Glu Leu Thr Leu Cys Lys Ser Asp Leu  
 165 170 175  
 Glu Ala Gln Val Glu Ser Leu Lys Glu Glu Leu Leu Cys Leu Lys Ser  
 180 185 190  
 Asn His Glu Gln Glu Val Asn Thr Leu Arg Cys Gln Leu Gly Asp Arg  
 195 200 205  
 Leu Asn Val Glu Val Asp Ala Pro Thr Val Asp Leu Asn Arg Val  
 210 215 220



Leu Asn Glu Thr Arg Ser Gln Tyr Glu Ala Leu Val Glu Thr Asn Arg  
 225 230 235 240  
 Arg Glu Val Glu Gln Trp Phe Thr Thr Gln Thr Glu Glu Leu Asn Lys  
 245 250 255  
 Gln Val Val Ser Ser Ser Glu Gln Leu Gln Ser Tyr Gln Ala Glu Ile  
 260 265 270  
 Ile Glu Leu Arg Arg Thr Val Asn Ala Leu Glu Ile Glu Leu Gln Ala  
 275 280 285  
 Gln His Asn Leu Arg Asp Ser Leu Glu Asn Thr Leu Thr Glu Ser Glu  
 290 295 300  
 Ala Arg Tyr Ser Ser Gln Leu Ser Gln Val Gln Ser Leu Ile Thr Asn  
 305 310 315 320  
 Val Glu Ser Gln Leu Ala Glu Ile Arg Ser Asp Leu Glu Arg Gln Asn  
 325 330 335  
 Gln Glu Tyr Gln Val Leu Leu Asp Val Arg Ala Arg Leu Glu Cys Glu  
 340 345 350  
 Ile Asn Thr Tyr Arg Ser Leu Leu Glu Ser Glu Asp Cys Asn Leu Pro  
 355 360 365  
 Ser Asn Pro Cys Ala Thr Thr Asn Ala Cys Ser Lys Pro Ile Gly Pro  
 370 375 380  
 Cys Leu Ser Asn Pro Cys Thr Ser Cys Val Pro Pro Ala Pro Cys Thr  
 385 390 395 400  
 Pro Cys Ala Pro Arg Pro Arg Cys Gly Pro Cys Asn Ser Phe Val Arg  
 405 410 415  
 <210> 429  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<400> 429  
 Met Thr Ser Asp His Cys Ser Ser Leu Leu Ser Gly Gln Val Ser Glu  
 1 5 10 15  
 Ala Asn Ala Ala Ser Leu Cys Leu Leu Ala Asn Val Ala His Ala Asn  
 20 25 30  
 Arg Val Arg Val Gly Ser Thr Pro Leu Gly Arg Leu Ser Leu Cys Leu  
 35 40 45  
 Pro Pro Thr Cys His Thr Thr Cys Pro Leu Pro Gly Thr Cys His Ile  
 50 55 60  
 Pro Gly Asn Ile Gly Ile Cys Gly Ala Tyr Arg Glu Asn Thr Leu Asn  
 65 70 75 80  
 Gly His Glu Lys Glu Thr Met Gln Phe Leu Asn Asp Arg Leu Ala Asn  
 85 90 95  
 Tyr Leu Glu Lys Val Arg Gln Leu Glu Trp Asp Asn Ala Glu Leu Glu  
 100 105 110  
 Thr Lys Leu His Glu Arg Ser Lys Cys His Glu Ser Ser Val Cys Arg  
 115 120 125  
 Asn Tyr Gln Ser Tyr Phe Cys Thr Ile Gln Glu Leu Gln Gln Lys Val  
 130 135 140  
 Arg Phe Ala Val His Gln Ile Arg Gly Gln Glu Ser Ala Tyr Cys Leu  
 145 150 155 160  
 Ser Ala Lys Ser Gly Pro Pro Pro Ala Phe Ala Asn Lys Val Leu Leu  
 165 170 175  
 Val His Gly His Ala His Ala Phe Val Cys Cys Leu Gln Leu Leu Leu  
 180 185 190  
 Tyr Tyr Ser Gly Arg Val Gln Ser Leu  
 195 200  
 <210> 430  
 <211> 471  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 430

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Met Thr Ser Phe Tyr Ser Thr Ser Ser Cys Pro Leu Gly Cys Thr Met
1      5      10      15
Ala Pro Gly Ala Arg Asn Val Phe Val Ser Pro Ile Asp Val Gly Cys
      20      25      30
Gln Pro Val Ala Glu Ala Asn Ala Ala Ser Met Cys Leu Leu Ala Asn
      35      40      45
Val Ala His Ala Asn Arg Val Arg Val Gly Ser Thr Pro Leu Gly Arg
      50      55      60
Pro Ser Leu Cys Leu Pro Pro Thr Ser His Thr Ala Cys Pro Leu Pro
      65      70      75      80
Gly Thr Cys His Ile Pro Gly Asn Ile Gly Ile Cys Gly Ala Tyr Gly
      85      90      95
Lys Asn Thr Leu Asn Gly His Glu Lys Glu Thr Met Lys Phe Leu Asn
      100      105      110
Asp Arg Leu Ala Asn Tyr Leu Glu Lys Val Arg Gln Leu Glu Gln Glu
      115      120      125
Asn Ala Glu Leu Glu Thr Thr Leu Leu Glu Arg Ser Lys Cys His Glu
      130      135      140
Ser Thr Val Cys Pro Asp Tyr Gln Ser Tyr Phe Arg Thr Ile Glu Glu
      145      150      155      160
Leu Gln Gln Lys Ile Leu Cys Ser Lys Ala Glu Asn Ala Arg Leu Ile
      165      170      175
Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp Asp Phe Arg Ile Lys
      180      185      190
Leu Glu Ser Glu Arg Ser Leu His Gln Leu Val Glu Ala Asp Lys Cys
      195      200      205
Gly Thr Gln Lys Leu Leu Asp Asp Ala Thr Leu Ala Lys Ala Asp Leu
      210      215      220
Glu Ala Gln Gln Glu Ser Leu Lys Glu Glu Gln Leu Ser Leu Lys Ser
      225      230      235      240
Asn His Glu Gln Glu Val Lys Ile Leu Arg Ser Gln Leu Gly Glu Lys
      245      250      255
Phe Arg Ile Glu Leu Asp Ile Glu Pro Thr Ile Asp Leu Asn Arg Val
      260      265      270
Leu Gly Glu Met Arg Ala Gln Tyr Glu Ala Met Val Glu Thr Asn His
      275      280      285
Gln Asp Val Glu Gln Trp Phe Gln Ala Gln Ser Glu Gly Ile Ser Leu
      290      295      300
Gln Ala Met Ser Cys Ser Glu Glu Leu Gln Cys Cys Gln Ser Glu Ile
      305      310      315      320
Leu Glu Leu Arg Cys Thr Val Asn Ala Leu Glu Val Glu Arg Gln Ala
      325      330      335
Gln His Thr Leu Lys Asp Cys Leu Gln Asn Ser Leu Cys Glu Ala Glu
      340      345      350
Asp Arg Tyr Gly Thr Glu Leu Ala Gln Met Gln Ser Leu Ile Ser Asn
      355      360      365
Leu Glu Glu Gln Leu Ser Glu Ile Arg Ala Asp Leu Glu Arg Gln Asn
      370      375      380
Gln Glu Tyr Gln Val Leu Leu Asp Val Lys Ala Arg Leu Glu Asn Glu
      385      390      395      400
Ile Ala Thr Tyr Arg Asn Leu Thr Pro Leu Gln Ser Leu Phe His Ala
      405      410      415
Cys Leu Leu Tyr Phe Leu Ser Lys Leu Trp Pro Cys His Arg Trp Val
      420      425      430
Ser Leu Trp Pro Trp Ser Gln His Gly Glu Met Ile Leu Lys Ala Arg
      435      440      445
Val Arg Arg Leu Arg Leu Val Ala Leu Gly Ser Gly Val Pro Ser Pro
      450      455      460
Cys Pro Val Phe Leu Gln Asp
465      470

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&lt;210&gt; 431

&lt;211&gt; 456

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 431

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Met Thr Ser Ser Tyr Ser Ser Ser Ser Cys Pro Leu Gly Cys Thr Met
1      5      10      15
Ala Pro Gly Ala Arg Asn Val Ser Val Ser Pro Ile Asp Ile Gly Cys
20      25      30
Gln Pro Gly Ala Glu Ala Asn Ile Ala Pro Met Cys Leu Leu Ala Asn
35      40      45
Val Ala His Ala Asn Arg Val Arg Val Gly Ser Thr Pro Leu Gly Arg
50      55      60
Pro Ser Leu Cys Leu Pro Pro Thr Cys His Thr Ala Cys Pro Leu Pro
65      70      75      80
Gly Thr Cys His Ile Pro Gly Asn Ile Gly Ile Cys Gly Ala Tyr Gly
85      90      95
Glu Asn Thr Leu Asn Gly His Glu Lys Glu Thr Met Gln Phe Leu Asn
100     105     110
Asp Arg Leu Ala Asn Tyr Leu Glu Lys Val Arg Gln Leu Glu Gln Glu
115     120     125
Asn Ala Glu Leu Glu Ala Thr Leu Leu Glu Arg Ser Lys Cys His Glu
130     135     140
Ser Thr Val Cys Pro Asp Tyr Gln Ser Tyr Phe His Thr Ile Glu Glu
145     150     155     160
Leu Gln Gln Lys Ile Leu Cys Ser Lys Ala Glu Asn Ala Arg Leu Ile
165     170     175
Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp Asp Phe Arg Ile Lys
180     185     190
Leu Glu Ser Glu Arg Ser Leu Arg Gln Leu Val Glu Ala Asp Lys Cys
195     200     205
Gly Thr Gln Lys Leu Leu Asp Asp Ala Thr Leu Ala Lys Ala Asp Leu
210     215     220
Glu Ala Gln Gln Glu Ser Leu Lys Glu Glu Gln Leu Ser Leu Lys Ser
225     230     235     240
Asn His Glu Gln Glu Val Lys Ile Leu Arg Ser Gln Leu Gly Glu Lys
245     250     255
Leu Arg Ile Glu Leu Asp Ile Glu Pro Thr Ile Asp Leu Asn Arg Val
260     265     270
Leu Gly Glu Met Arg Ala Gln Tyr Glu Ala Met Leu Glu Thr Asn Arg
275     280     285
Gln Asp Val Glu Gln Trp Phe Gln Ala Gln Ser Glu Gly Ile Ser Leu
290     295     300
Gln Asp Met Ser Cys Ser Glu Glu Leu Gln Cys Cys Gln Ser Glu Ile
305     310     315     320
Leu Glu Leu Arg Cys Thr Val Asn Ala Leu Glu Val Glu Arg Gln Ala
325     330     335
Gln His Thr Leu Lys Asp Cys Leu Gln Asn Ser Leu Cys Glu Ala Glu
340     345     350
Asp Arg Phe Gly Thr Glu Leu Ala Gln Met Gln Ser Leu Ile Ser Asn
355     360     365
Val Glu Glu Gln Leu Ser Glu Ile Arg Ala Asp Leu Glu Arg Gln Asn
370     375     380
Gln Glu Tyr Gln Val Leu Leu Asp Val Lys Thr Arg Leu Glu Asn Glu
385     390     395     400
Ile Ala Thr Tyr Arg Asn Leu Leu Glu Ser Glu Asp Cys Lys Leu Pro
405     410     415
Cys Asn Pro Cys Ser Thr Ser Pro Ser Cys Val Thr Ala Pro Cys Ala
420     425     430

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- 236 -

Pro Arg Pro Ser Cys Gly Pro Cys Thr Thr Cys Gly Pro Thr Cys Gly  
 435 440 445  
 Ala Ser Thr Thr Gly Ser Arg Phe  
 450 455  
 <210> 432  
 <211> 448  
 <212> . PRT  
 <213> Homo sapiens

<400> 432  
 Met Thr Ser Ser Cys Cys Val Thr Asn Asn Leu Gln Ala Ser Leu Lys  
 1 5 10 15  
 Ser Cys Pro Arg Pro Ala Ser Val Cys Ser Ser Gly Val Asn Cys Arg  
 20 25 30  
 Pro Glu Leu Cys Leu Gly Tyr Val Cys Gln Pro Met Ala Cys Leu Pro  
 35 40 45  
 Ser Val Cys Leu Pro Thr Thr Phe Arg Pro Ala Ser Cys Leu Ser Lys  
 50 55 60  
 Thr Tyr Leu Ser Ser Ser Cys Gln Ala Ala Ser Gly Ile Ser Gly Ser  
 65 70 75 80  
 Met Gly Pro Gly Ser Trp Tyr Ser Glu Gly Ala Phe Asn Gly Asn Glu  
 85 90 95  
 Lys Glu Thr Met Gln Phe Leu Asn Asp Arg Leu Ala Ser Tyr Leu Thr  
 100 105 110  
 Arg Val Arg Gln Leu Glu Gln Glu Asn Ala Glu Leu Glu Ser Arg Ile  
 115 120 125  
 Gln Glu Ala Ser His Ser Gln Val Leu Thr Met Thr Pro Asp Tyr Gln  
 130 135 140  
 Ser His Phe Arg Thr Ile Glu Glu Leu Gln Gln Lys Ile Leu Cys Thr  
 145 150 155 160  
 Lys Ala Glu Asn Ala Arg Met Val Val Asn Ile Asp Asn Ala Lys Leu  
 165 170 175  
 Ala Ala Asp Asp Phe Arg Ala Lys Tyr Glu Ala Glu Leu Ala Met Arg  
 180 185 190  
 Gln Leu Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Ile Leu Asp Asp  
 195 200 205  
 Leu Thr Leu Cys Lys Ala Asp Leu Glu Ala Gln Val Glu Ser Leu Lys  
 210 215 220  
 Glu Glu Leu Met Cys Leu Lys Lys Asn His Glu Glu Glu Val Gly Ser  
 225 230 235 240  
 Leu Arg Cys Gln Leu Gly Asp Arg Leu Asn Ile Glu Val Asp Ala Ala  
 245 250 255  
 Pro Pro Val Asp Leu Thr Arg Val Leu Glu Glu Met Arg Cys Gln Tyr  
 260 265 270  
 Glu Ala Met Val Glu Ala Asn Arg Arg Asp Val Glu Glu Trp Phe Asn  
 275 280 285  
 Met Gln Met Glu Glu Leu Asn Gln Gln Val Ala Thr Ser Ser Glu Gln  
 290 295 300  
 Leu Gln Asn Tyr Gln Ser Asp Ile Ile Asp Leu Arg Arg Thr Val Asn  
 305 310 315 320  
 Thr Leu Glu Ile Glu Leu Gln Ala Gln His Ser Leu Arg Asp Ser Leu  
 325 330 335  
 Glu Asn Thr Leu Thr Glu Ser Glu Ala Arg Tyr Ser Ser Gln Leu Ala  
 340 345 350  
 Gln Met Gln Cys Met Ile Thr Asn Val Glu Ala Gln Leu Ala Glu Ile  
 355 360 365  
 Arg Ala Asp Leu Glu Arg Gln Asn Gln Glu Tyr Gln Val Leu Leu Asp  
 370 375 380  
 Val Arg Ala Arg Leu Glu Gly Glu Ile Asn Thr Tyr Arg Ser Leu Leu  
 385 390 395 400

[illegible]

<400>	433															
Met 1	Tyr	Ser	Ser	Ser 5	Ser	Cys	Lys	Leu	Pro 10	Ser	Leu	Ser	Pro	Val 15	Ala	
Arg	Ser	Phe	Ser 20	Ala	Cys	Ser	Val	Gly 25	Leu	Gly	Arg	Ser 30	Ser	Tyr	Arg	
Ala	Thr	Ser 35	Cys	Leu	Pro	Ala	Leu 40	Cys	Leu	Pro	Ala	Gly 45	Gly	Phe	Ala	
Thr	Ser 50	Tyr	Ser	Gly	Gly	Gly 55	Gly	Trp	Phe	Gly	Glu 60	Gly	Ile	Leu	Thr	
Gly 65	Asn	Glu	Lys	Glu	Thr 70	Met	Gln	Ser	Leu	Asn 75	Asp	Arg	Leu	Ala	Gly 80	
Tyr	Leu	Glu	Lys	Val 85	Arg	Gln	Leu	Glu	Gln 90	Glu	Asn	Ala	Ser	Leu 95	Glu	
Ser	Arg	Ile	Arg 100	Glu	Trp	Cys	Glu	Gln 105	Gln	Val	Pro	Tyr	Met 110	Cys	Pro	
Asp	Tyr	Gln 115	Ser	Tyr	Phe	Arg	Thr 120	Ile	Glu	Glu	Leu	Gln 125	Lys	Lys	Thr	
Leu	Cys	Ser	Lys	Ala	Glu	Asn 135	Ala	Arg	Leu	Val	Val 140	Glu	Ile	Asp	Asn	
Ala 145	Lys	Leu	Ala	Ala	Asp 150	Asp	Phe	Arg	Thr	Lys 155	Tyr	Glu	Thr	Glu	Val 160	
Ser	Leu	Arg	Gln	Leu 165	Val	Glu	Ser	Asp	Ile 170	Asn	Gly	Leu	Arg	Arg 175	Ile	
Leu	Asp	Asp	Leu 180	Thr	Leu	Cys	Lys	Ser 185	Asp	Leu	Glu	Ala 190	Gln	Val	Glu	
Ser	Leu	Lys 195	Glu	Glu	Leu	Leu	Cys 200	Leu	Lys	Lys	Asn 205	His	Glu	Glu	Glu	
Val	Asn 210	Ser	Leu	Arg	Cys	Gln 215	Leu	Gly	Asp	Arg	Leu 220	Asn	Val	Glu	Val	
Asp 225	Ala	Ala	Pro	Pro	Val 230	Asp	Leu	Asn	Arg	Val 235	Leu	Glu	Glu	Met	Arg 240	
Cys	Gln	Tyr	Glu	Thr 245	Leu	Val	Glu	Asn	Asn 250	Arg	Arg	Asp	Ala	Glu	Asp 255	
Trp	Leu	Asp	Thr 260	Gln	Ser	Glu	Glu	Leu 265	Asn	Gln	Gln	Val 270	Val	Ser	Ser	
Ser	Glu	Gln 275	Leu	Gln	Ser	Cys	Gln 280	Ala	Glu	Ile	Ile	Glu 285	Leu	Arg	Arg	
Thr	Val 290	Asn	Ala	Leu	Glu	Ile 295	Glu	Leu	Gln	Ala	Gln 300	His	Ser	Met	Arg	
Asp 305	Ala	Leu	Glu	Ser	Thr 310	Leu	Ala	Glu	Thr	Glu 315	Ala	Arg	Tyr	Ser	Ser 320	
Gln	Leu	Ala	Gln	Met 325	Gln	Cys	Met	Ile	Thr 330	Asn	Val	Glu	Ala	Gln 335	Leu	
Ala	Glu	Ile	Arg 340	Ala	Asp	Leu	Glu	Arg 345	Gln	Asn	Gln	Glu	Tyr 350	Gln	Val	
Leu	Leu	Asp 355	Val	Arg	Ala	Arg	Leu 360	Glu	Cys	Glu	Ile	Asn 365	Thr	Tyr	Arg	
Gly	Leu 370	Leu	Glu	Ser	Glu	Asp 375	Ser	Lys	Leu	Pro	Cys 380	Asn	Pro	Cys	Ala	

Pro Asp Tyr Ser Pro Ser Lys Ser Cys Leu Pro Cys Leu Pro Ala Ala  
 385 390 395 400  
 Ser Cys Gly Pro Ser Ala Ala Arg Thr Asn Cys Ser Pro Arg Pro Ile  
 405 410 415  
 Cys Val Pro Cys Pro Gly Gly Arg Phe  
 420 425  
 <210> 434  
 <211> 467  
 <212> PRT  
 <213> Homo sapiens

<400> 434  
 Met Ala Thr Gln Thr Cys Thr Pro Thr Phe Ser Thr Gly Ser Ile Lys  
 1 5 10 15  
 Gly Leu Cys Gly Thr Ala Gly Gly Ile Ser Arg Val Ser Ser Ile Arg  
 20 25 30  
 Ser Val Gly Ser Cys Arg Val Pro Ser Leu Ala Gly Ala Ala Gly Tyr  
 35 40 45  
 Ile Ser Ser Ala Arg Ser Gly Leu Ser Gly Leu Gly Ser Cys Leu Pro  
 50 55 60  
 Gly Ser Tyr Leu Ser Ser Glu Cys His Thr Ser Gly Phe Val Gly Ser  
 65 70 75 80  
 Gly Gly Trp Phe Cys Glu Gly Ser Phe Asn Gly Ser Glu Lys Glu Thr  
 85 90 95  
 Met Gln Phe Leu Asn Asp Arg Leu Ala Asn Tyr Leu Glu Lys Val Arg  
 100 105 110  
 Gln Leu Glu Arg Glu Asn Ala Glu Leu Glu Ser Arg Ile Gln Glu Trp  
 115 120 125  
 Tyr Glu Phe Gln Ile Pro Tyr Ile Cys Pro Asp Tyr Gln Ser Tyr Phe  
 130 135 140  
 Lys Thr Ile Glu Asp Phe Gln Gln Lys Ile Leu Leu Thr Lys Ser Glu  
 145 150 155 160  
 Asn Ala Arg Leu Val Leu Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp  
 165 170 175  
 Asp Phe Arg Thr Lys Tyr Glu Thr Glu Leu Ser Leu Arg Gln Leu Val  
 180 185 190  
 Glu Ala Asp Ile Asn Gly Leu Arg Arg Ile Leu Asp Glu Thr Leu  
 195 200 205  
 Cys Lys Ala Asp Leu Glu Ala Gln Val Glu Ser Leu Lys Glu Glu Leu  
 210 215 220  
 Met Cys Leu Lys Lys Asn His Glu Glu Glu Val Ser Val Leu Arg Cys  
 225 230 235 240  
 Gln Leu Gly Asp Arg Leu Asn Val Glu Val Asp Ala Ala Pro Pro Val  
 245 250 255  
 Asp Leu Asn Lys Ile Leu Glu Asp Met Arg Cys Gln Tyr Glu Ala Leu  
 260 265 270  
 Val Glu Asn Asn Arg Arg Asp Val Glu Ala Trp Phe Asn Thr Gln Thr  
 275 280 285  
 Glu Glu Leu Asn Gln Gln Val Val Ser Ser Ser Glu Gln Leu Gln Cys  
 290 295 300  
 Cys Gln Thr Glu Ile Ile Glu Leu Arg Arg Thr Val Asn Ala Leu Glu  
 305 310 315 320  
 Ile Glu Leu Gln Ala Gln His Ser Met Arg Asn Ser Leu Glu Ser Thr  
 325 330 335  
 Leu Ala Glu Thr Glu Ala Arg Tyr Ser Ser Gln Leu Ala Gln Met Gln  
 340 345 350  
 Cys Leu Ile Ser Asn Val Glu Ala Gln Leu Ser Glu Ile Arg Cys Asp  
 355 360 365  
 Leu Glu Arg Gln Asn Gln Glu Tyr Gln Val Leu Leu Asp Val Lys Ala  
 370 375 380

Arg Leu Glu Gly Glu Ile Ala Thr Tyr Arg His Leu Leu Glu Gly Glu  
 385 390 395 400  
 Asp Cys Lys Leu Pro Pro Gln Pro Cys Ala Thr Ala Cys Lys Pro Val  
 405 410 415  
 Ile Arg Val Pro Ser Val Pro Pro Val Pro Cys Val Pro Ser Val Pro  
 420 425 430  
 Cys Thr Pro Ala Pro Gln Val Gly Thr Gln Ile Arg Thr Ile Thr Glu  
 435 440 445  
 Glu Ile Arg Asp Gly Lys Val Ile Ser Ser Arg Glu His Val Gln Ser  
 450 455 460  
 Arg Pro Leu  
 465  
 <210> 435  
 <211> 420  
 <212> PRT  
 <213> Homo sapiens

<400> 435  
 Met Ser Leu Arg Leu Gln Ser Ser Ser Ala Ser Tyr Gly Gly Gly Phe  
 1 5 10 15  
 Gly Gly Gly Ser Cys Gln Leu Gly Gly Gly Arg Gly Val Ser Thr Cys  
 20 25 30  
 Ser Thr Arg Phe Val Ser Gly Gly Ser Ala Gly Gly Tyr Gly Gly Gly  
 35 40 45  
 Val Ser Cys Gly Phe Gly Gly Gly Ala Gly Ser Gly Phe Gly Gly Gly  
 50 55 60  
 Tyr Gly Gly Gly Leu Gly Gly Gly Tyr Gly Gly Gly Leu Gly Gly Gly  
 65 70 75 80  
 Phe Gly Gly Gly Phe Ala Gly Gly Phe Val Asp Phe Gly Ala Cys Asp  
 85 90 95  
 Gly Gly Leu Leu Thr Gly Asn Glu Lys Ile Thr Met Gln Asn Leu Asn  
 100 105 110  
 Asp Arg Leu Ala Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala  
 115 120 125  
 Asn Ala Asp Leu Glu Val Lys Ile Arg Asp Trp His Leu Lys Gln Ser  
 130 135 140  
 Pro Ala Ser Pro Glu Arg Asp Tyr Ser Pro Tyr Tyr Lys Thr Ile Glu  
 145 150 155 160  
 Glu Leu Arg Asp Lys Ile Leu Thr Ala Thr Ile Glu Asn Asn Arg Val  
 165 170 175  
 Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Val Asp Asp Phe Arg Leu  
 180 185 190  
 Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Ser Val Glu Ala Asp Ile  
 195 200 205  
 Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ser Lys Thr Asp  
 210 215 220  
 Leu Glu Met Gln Ile Glu Ser Leu Asn Glu Glu Leu Ala Tyr Met Lys  
 225 230 235 240  
 Lys Asn His Glu Glu Glu Met Lys Glu Phe Ser Asn Gln Val Val Gly  
 245 250 255  
 Gln Val Asn Val Glu Met Asp Ala Thr Pro Gly Ile Asp Leu Thr Arg  
 260 265 270  
 Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Arg Asn  
 275 280 285  
 Arg Arg Asp Ala Glu Glu Trp Phe His Ala Lys Ser Ala Glu Leu Asn  
 290 295 300  
 Lys Glu Val Ser Thr Asn Thr Ala Met Ile Gln Thr Ser Lys Thr Glu  
 305 310 315 320  
 Ile Thr Glu Leu Arg Arg Thr Leu Gln Gly Leu Glu Ile Glu Leu Gln  
 325 330 335

Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Thr Val Ala Glu Thr  
 340 345 350  
 Glu Cys Arg Tyr Ala Leu Gln Leu Gln Gln Ile Gln Gly Leu Ile Ser  
 355 360 365  
 Ser Ile Glu Ala Gln Leu Ser Glu Leu Arg Ser Glu Met Glu Cys Gln  
 370 375 380  
 Asn Gln Glu Tyr Lys Met Leu Leu Asp Ile Lys Thr Arg Leu Glu Gln  
 385 390 395 400  
 Glu Ile Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Asp Ala Lys Lys  
 405 410 415  
 Arg Gln Pro Pro  
 420  
 <210> 436  
 <211> 456  
 <212> PRT  
 <213> Homo sapiens

<400> 436  
 Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly Gly  
 1 5 10 15  
 Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Gly Phe Gly Gly  
 20 25 30  
 Gly Ser Leu Ser Gly Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser  
 35 40 45  
 Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Gly Tyr Gly Gly Gly Met  
 50 55 60  
 Arg Val Cys Gly Phe Gly Gly Gly Ala Gly Ser Val Phe Gly Gly Gly  
 65 70 75 80  
 Phe Gly Gly Gly Val Gly Gly Gly Phe Gly Gly Gly Phe Gly Gly Gly  
 85 90 95  
 Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu  
 100 105 110  
 Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu  
 115 120 125  
 Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln  
 130 135 140  
 Thr Pro Thr Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile  
 145 150 155 160  
 Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg  
 165 170 175  
 Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg  
 180 185 190  
 Leu Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp  
 195 200 205  
 Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr  
 210 215 220  
 Asp Leu Glu Met Gln Ile Glu Gly Leu Asn Glu Glu Leu Ala Tyr Leu  
 225 230 235 240  
 Lys Lys Asn His Glu Glu Glu Met Lys Glu Phe Ser Ser Gln Leu Ala  
 245 250 255  
 Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr  
 260 265 270  
 Arg Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Lys  
 275 280 285  
 Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu  
 290 295 300  
 Asn Lys Glu Val Ala Ser Asn Thr Glu Met Ile Gln Thr Ser Lys Thr  
 305 310 315 320  
 Glu Ile Thr Asp Leu Arg Arg Thr Met Gln Glu Leu Glu Ile Glu Leu  
 325 330 335



Gln Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Ser Leu Ala Glu  
 340 345 350  
 Thr Glu Cys Arg Tyr Ala Thr Gln Leu Gln Gln Ile Gln Gly Leu Ile  
 355 360 365  
 Gly Gly Leu Glu Ala Gln Leu Ser Glu Leu Arg Cys Glu Met Glu Ala  
 370 375 380  
 Gln Asn Gln Glu Tyr Lys Met Leu Leu Asp Ile Lys Thr Arg Leu Glu  
 385 390 395 400  
 Gln Glu Ile Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Asp Ala Lys  
 405 410 415  
 Met Ala Gly Ile Gly Ile Arg Glu Ala Ser Ser Gly Gly Gly Ser  
 420 425 430  
 Ser Ser Asn Phe His Ile Asn Val Glu Glu Ser Val Asp Gly Gln Val  
 435 440 445  
 Val Ser Ser His Lys Arg Glu Ile  
 450 455  
 <210> 437  
 <211> 400  
 <212> PRT  
 <213> Homo sapiens

<400> 437  
 Met Thr Ser Tyr Ser Tyr Arg Gln Ser Ser Ala Thr Ser Ser Phe Gly  
 1 5 10 15  
 Gly Leu Gly Gly Gly Ser Val Arg Phe Gly Pro Gly Val Ala Phe Arg  
 20 25 30  
 Ala Pro Ser Ile His Gly Gly Ser Gly Gly Arg Gly Val Ser Val Ser  
 35 40 45  
 Ser Ala Arg Phe Val Ser Ser Ser Ser Gly Ala Tyr Gly Gly Gly  
 50 55 60  
 Tyr Gly Gly Val Leu Thr Ala Ser Asp Gly Leu Leu Ala Gly Asn Glu  
 65 70 75 80  
 Lys Leu Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp  
 85 90 95  
 Lys Val Arg Ala Leu Glu Ala Ala Asn Gly Glu Leu Glu Val Lys Ile  
 100 105 110  
 Arg Asp Trp Tyr Gln Lys Gln Gly Pro Gly Pro Ser Arg Asp Tyr Ser  
 115 120 125  
 His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys Ile Leu Gly Ala  
 130 135 140  
 Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu  
 145 150 155 160  
 Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg  
 165 170 175  
 Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu  
 180 185 190  
 Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu Gly Leu Lys  
 195 200 205  
 Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Ile Ser Thr  
 210 215 220  
 Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu Val Asp Ser Ala  
 225 230 235 240  
 Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Ser Asp Met Arg Ser Gln Tyr  
 245 250 255  
 Glu Val Met Ala Glu Gln Asn Arg Lys Asp Ala Glu Ala Trp Phe Thr  
 260 265 270  
 Ser Arg Thr Glu Glu Leu Asn Arg Glu Val Ala Gly His Thr Glu Gln  
 275 280 285  
 Leu Gln Met Ser Arg Ser Glu Val Thr Asp Leu Arg Arg Thr Leu Gln  
 290 295 300

Gly Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys Ala Ala Leu  
 305 310 315 320  
 Glu Asp Thr Leu Ala Glu Thr Glu Ala Arg Phe Gly Ala Gln Leu Ala  
 325 330 335  
 His Ile Gln Ala Leu Ile Ser Gly Ile Glu Ala Gln Leu Gly Asp Val  
 340 345 350  
 Arg Ala Asp Ser Glu Arg Gln Asn Gln Glu Tyr Gln Arg Leu Met Asp  
 355 360 365  
 Ile Lys Ser Arg Leu Glu Gln Glu Ile Ala Thr Tyr Arg Ser Leu Leu  
 370 375 380  
 Glu Gly Gln Glu Asp His Tyr Asn Asn Leu Ser Ala Ser Lys Val Leu  
 385 390 395 400  
 <210> 438  
 <211> 622  
 <212> PRT  
 <213> Homo sapiens

<400> 438  
 Met Ser Cys Arg Gln Phe Ser Ser Ser Tyr Leu Thr Ser Gly Gly Gly  
 1 5 10 15  
 Gly Gly Gly Gly Leu Gly Ser Gly Gly Ser Ile Arg Ser Ser Tyr Ser  
 20 25 30  
 Arg Phe Ser Ser Ser Gly Gly Arg Gly Gly Gly Gly Arg Phe Ser Ser  
 35 40 45  
 Ser Ser Gly Tyr Gly Gly Gly Ser Ser Arg Val Cys Gly Arg Gly Gly  
 50 55 60  
 Gly Gly Ser Phe Gly Tyr Ser Tyr Gly Gly Gly Ser Gly Gly Gly Phe  
 65 70 75 80  
 Ser Ala Ser Ser Leu Gly Gly Gly Phe Gly Gly Gly Ser Arg Gly Phe  
 85 90 95  
 Gly Gly Ala Ser Gly Gly Gly Tyr Ser Ser Ser Gly Gly Phe Gly Gly  
 100 105 110  
 Gly Phe Gly Gly Gly Ser Gly Gly Gly Phe Gly Gly Gly Tyr Gly Ser  
 115 120 125  
 Gly Phe Gly Gly Leu Gly Gly Phe Gly Gly Gly Ala Gly Gly Gly Asp  
 130 135 140  
 Gly Gly Ile Leu Thr Ala Asn Glu Lys Ser Thr Met Gln Glu Leu Asn  
 145 150 155 160  
 Ser Arg Leu Ala Ser Tyr Leu Asp Lys Val Gln Ala Leu Glu Glu Ala  
 165 170 175  
 Asn Asn Asp Leu Glu Asn Lys Ile Gln Asp Trp Tyr Asp Lys Lys Gly  
 180 185 190  
 Pro Ala Ala Ile Gln Lys Asn Tyr Ser Pro Tyr Tyr Asn Thr Ile Asp  
 195 200 205  
 Asp Leu Lys Asp Gln Ile Val Asp Leu Thr Val Gly Asn Asn Lys Thr  
 210 215 220  
 Leu Leu Asp Ile Asp Asn Thr Arg Met Thr Leu Asp Asp Phe Arg Ile  
 225 230 235 240  
 Lys Phe Glu Met Glu Gln Asn Leu Arg Gln Gly Val Asp Ala Asp Ile  
 245 250 255  
 Asn Gly Leu Arg Gln Val Leu Asp Asn Leu Thr Met Glu Lys Ser Asp  
 260 265 270  
 Leu Glu Met Gln Tyr Glu Thr Leu Gln Glu Glu Leu Met Ala Leu Lys  
 275 280 285  
 Lys Asn His Lys Glu Glu Met Ser Gln Leu Thr Gly Gln Asn Ser Gly  
 290 295 300  
 Asp Val Asn Val Glu Ile Asn Val Ala Pro Gly Lys Asp Leu Thr Lys  
 305 310 315 320  
 Thr Leu Asn Asp Met Arg Gln Glu Tyr Glu Gln Leu Ile Ala Lys Asn  
 325 330 335

Arg Lys Asp Ile Glu Asn Gln Tyr Glu Thr Gln Ile Thr Gln Ile Glu  
 340 345 350  
 His Glu Val Ser Ser Ser Gly Gln Glu Val Gln Ser Ser Ala Lys Glu  
 355 360 365  
 Val Thr Gln Leu Arg His Gly Val Gln Glu Leu Glu Ile Glu Leu Gln  
 370 375 380  
 Ser Gln Leu Ser Lys Lys Ala Ala Leu Glu Lys Ser Leu Glu Asp Thr  
 385 390 395 400  
 Lys Asn Arg Tyr Cys Gly Gln Leu Gln Met Ile Gln Glu Gln Ile Ser  
 405 410 415  
 Asn Leu Glu Ala Gln Ile Thr Asp Val Arg Gln Glu Ile Glu Cys Gln  
 420 425 430  
 Asn Gln Glu Tyr Ser Leu Leu Leu Ser Ile Lys Met Arg Leu Glu Lys  
 435 440 445  
 Glu Ile Glu Thr Tyr His Asn Leu Leu Glu Gly Gly Gln Glu Asp Phe  
 450 455 460  
 Glu Ser Ser Gly Ala Gly Lys Ile Gly Leu Gly Gly Arg Gly Gly Ser  
 465 470 475 480  
 Gly Gly Ser Tyr Gly Arg Gly Ser Arg Gly Ser Gly Gly Ser Tyr  
 485 490 495  
 Gly Gly Gly Gly Ser Gly Gly Gly Tyr Gly Gly Gly Ser Gly Ser Arg  
 500 505 510  
 Gly Gly Ser Gly Gly Ser Tyr Gly Gly Ser Gly Ser Gly Gly Gly  
 515 520 525  
 Ser Gly Gly Gly Tyr Gly Gly Ser Gly Gly Gly His Ser Gly Gly  
 530 535 540  
 Ser Gly Gly Gly His Ser Gly Gly Ser Gly Gly Asn Tyr Gly Gly Gly  
 545 550 555 560  
 Ser Gly Ser Gly Gly Ser Gly Gly Gly Tyr Gly Gly Gly Ser Gly  
 565 570 575  
 Ser Arg Gly Gly Ser Gly Gly Ser His Gly Gly Gly Ser Gly Phe Gly  
 580 585 590  
 Gly Glu Ser Gly Gly Ser Tyr Gly Gly Gly Glu Glu Ala Ser Gly Ser  
 595 600 605  
 Gly Gly Gly Tyr Gly Gly Gly Ser Gly Lys Ser Ser His Ser  
 610 615 620  
 <210> 439  
 <211> 472  
 <212> PRT  
 <213> Homo sapiens

<400> 439  
 Met Thr Thr Cys Ser Arg Gln Phe Thr Ser Ser Ser Ser Met Lys Gly  
 1 5 10 15  
 Ser Cys Gly Ile Gly Gly Gly Ile Gly Gly Gly Ser Ser Arg Ile Ser  
 20 25 30  
 Ser Val Leu Ala Gly Gly Ser Cys Arg Ala Pro Ser Thr Tyr Gly Gly  
 35 40 45  
 Gly Leu Ser Val Ser Ser Ser Arg Phe Ser Ser Gly Gly Ala Tyr Gly  
 50 55 60  
 Leu Gly Gly Gly Tyr Gly Gly Gly Phe Ser Ser Ser Ser Ser Phe  
 65 70 75 80  
 Gly Ser Gly Phe Gly Gly Gly Tyr Gly Gly Leu Gly Ala Gly Leu  
 85 90 95  
 Gly Gly Gly Phe Gly Gly Gly Phe Ala Gly Gly Asp Gly Leu Leu Val  
 100 105 110  
 Gly Ser Glu Lys Val Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser  
 115 120 125  
 Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp Leu Glu  
 130 135 140

Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Arg Pro Ala Glu Ile Lys  
 145 150 155 160  
 Asp Tyr Ser Pro Tyr Phe Lys Thr Ile Glu Asp Leu Arg Asn Lys Ile  
 165 170 175  
 Leu Thr Ala Thr Val Asp Asn Ala Asn Val Leu Leu Gln Ile Asp Asn  
 180 185 190  
 Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Tyr Glu Thr Glu Leu  
 195 200 205  
 Asn Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val  
 210 215 220  
 Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu  
 225 230 235 240  
 Ser Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu  
 245 250 255  
 Met Asn Ala Leu Arg Gly Gln Val Gly Gly Asp Val Asn Val Glu Met  
 260 265 270  
 Asp Ala Ala Pro Gly Val Asp Leu Ser Arg Ile Leu Asn Glu Met Arg  
 275 280 285  
 Asp Gln Tyr Glu Lys Met Ala Glu Lys Asn Arg Lys Asp Ala Glu Glu  
 290 295 300  
 Trp Phe Phe Thr Lys Thr Glu Glu Leu Asn Arg Glu Val Ala Thr Asn  
 305 310 315 320  
 Ser Glu Leu Val Gln Ser Gly Lys Ser Glu Ile Ser Glu Leu Arg Arg  
 325 330 335  
 Thr Met Gln Asn Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys  
 340 345 350  
 Ala Ser Leu Glu Asn Ser Leu Glu Glu Thr Lys Gly Arg Tyr Cys Met  
 355 360 365  
 Gln Leu Ala Gln Ile Gln Glu Met Ile Gly Ser Val Glu Glu Gln Leu  
 370 375 380  
 Ala Gln Leu Arg Cys Glu Met Glu Gln Gln Asn Gln Glu Tyr Lys Ile  
 385 390 395 400  
 Leu Leu Asp Val Lys Thr Arg Leu Glu Gln Glu Ile Ala Thr Tyr Arg  
 405 410 415  
 Arg Leu Leu Glu Gly Glu Asp Ala His Leu Ser Ser Ser Gln Phe Ser  
 420 425 430  
 Ser Gly Ser Gln Ser Ser Arg Asp Val Thr Ser Ser Ser Arg Gln Ile  
 435 440 445  
 Arg Thr Lys Val Met Asp Val His Asp Gly Lys Val Val Ser Thr His  
 450 455 460  
 Glu Gln Val Leu Arg Thr Lys Asn  
 465 470

&lt;210&gt; 440

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 440

Met Thr Thr Cys Ser Arg Gln Phe Thr Ser Ser Ser Ser Met Lys Gly  
 1 5 10 15  
 Ser Cys Gly Ile Gly Gly Gly Ile Gly Gly Gly Ser Ser Arg Ile Ser  
 20 25 30  
 Ser Val Leu Ala Gly Gly Ser Cys Arg Ala Pro Ser Thr Tyr Gly Gly  
 35 40 45  
 Gly Leu Ser Val Ser Ser Arg Phe Ser Ser Gly Gly Ala Cys Gly Leu  
 50 55 60  
 Gly Gly Gly Tyr Gly Gly Gly Phe Ser Ser Ser Ser Phe Gly Ser  
 65 70 75 80  
 Gly Phe Gly Gly Gly Tyr Gly Gly Gly Leu Gly Ala Gly Phe Gly Gly  
 85 90 95

Gly Leu Gly Ala Gly Phe Gly Gly Gly Phe Ala Gly Gly Asp Gly Leu  
 100 105 110  
 Leu Val Gly Ser Glu Lys Val Thr Met Gln Asn Leu Asn Asp Arg Leu  
 115 120 125  
 Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp  
 130 135 140  
 Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Arg Pro Ser Glu  
 145 150 155 160  
 Ile Lys Asp Tyr Ser Pro Tyr Phe Lys Thr Ile Glu Asp Leu Arg Asn  
 165 170 175  
 Lys Ile Ile Ala Thr Ile Glu Asn Ala Gln Pro Ile Leu Gln Ile  
 180 185 190  
 Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Tyr Glu His  
 195 200 205  
 Glu Leu Ala Leu Arg Gln Thr Val Glu Ala Asp Val Asn Gly Leu Arg  
 210 215 220  
 Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln  
 225 230 235 240  
 Ile Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Arg Lys Asn His Glu  
 245 250 255  
 Glu Glu Met Leu Ala Leu Arg Gly Gln Thr Gly Gly Asp Val Asn Val  
 260 265 270  
 Glu Met Asp Ala Ala Pro Gly Val Asp Leu Ser Arg Ile Leu Asn Glu  
 275 280 285  
 Met Arg Asp Gln Tyr Glu Gln Met Ala Glu Lys Asn Arg Arg Asp Ala  
 290 295 300  
 Glu Thr Trp Phe Leu Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala  
 305 310 315 320  
 Ser Asn Ser Glu Leu Val Gln Ser Ser Arg Ser Glu Val Thr Glu Leu  
 325 330 335  
 Arg Arg Val Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser  
 340 345 350  
 Met Lys Ala Ser Leu Glu Asn Ser Leu Glu Glu Thr Lys Gly Arg Tyr  
 355 360 365  
 Cys Met Gln Leu Ser Gln Ile Gln Gly Leu Ile Gly Ser Val Glu Glu  
 370 375 380  
 Gln Leu Ala Gln Leu Arg Cys Glu Met Glu Gln Gln Ser Gln Glu Tyr  
 385 390 395 400  
 Gln Ile Leu Leu Asp Val Lys Thr Arg Leu Glu Gln Glu Ile Ala Thr  
 405 410 415  
 Tyr Arg Arg Leu Leu Glu Gly Glu Asp Ala His Leu Ser Ser Gln Gln  
 420 425 430  
 Ala Ser Gly Gln Ser Tyr Ser Ser Arg Glu Val Phe Thr Ser Ser Ser  
 435 440 445  
 Ser Ser Ser Ser Arg Gln Thr Arg Pro Ile Leu Lys Glu Gln Ser Ser  
 450 455 460  
 Ser Ser Phe Ser Gln Gly Gln Ser Ser  
 465 470  
 <210> 441  
 <211> 432  
 <212> PRT  
 <213> Homo sapiens  
 <400> 441  
 Met Thr Thr Ser Ile Arg Gln Phe Thr Ser Ser Ser Ser Ile Lys Gly  
 1 5 10 15  
 Ser Ser Gly Leu Gly Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser  
 20 25 30  
 Gly Gly Leu Gly Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu  
 35 40 45

Gly Ser Thr Leu Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly  
 50 55 60  
 Ser Gly Gly Gly Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu  
 65 70 75 80  
 Ala Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala  
 85 90 95  
 Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu  
 100 105 110  
 Glu Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala  
 115 120 125  
 Arg Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys  
 130 135 140  
 Ile Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp  
 145 150 155 160  
 Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu  
 165 170 175  
 Gln Ala Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg  
 180 185 190  
 Val Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile  
 195 200 205  
 Glu Asn Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu  
 210 215 220  
 Glu Met Asn Ala Leu Arg Gly Gln Val Gly Gly Glu Ile Asn Val Glu  
 225 230 235 240  
 Met Asp Ala Ala Pro Gly Val Asp Leu Ser Arg Ile Leu Asn Glu Met  
 245 250 255  
 Arg Asp Gln Tyr Glu Lys Met Ala Glu Lys Asn Arg Lys Asp Ala Glu  
 260 265 270  
 Asp Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Arg Glu Val Ala Thr  
 275 280 285  
 Asn Ser Glu Leu Val Gln Ser Gly Lys Ser Glu Ile Ser Glu Leu Arg  
 290 295 300  
 Arg Thr Met Gln Ala Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met  
 305 310 315 320  
 Lys Ala Ser Leu Glu Gly Asn Leu Ala Glu Thr Glu Asn Arg Tyr Cys  
 325 330 335  
 Val Gln Leu Ser Gln Ile Gln Gly Leu Ile Gly Ser Val Glu Glu Gln  
 340 345 350  
 Leu Ala Gln Leu Arg Cys Glu Met Glu Gln Gln Asn Gln Glu Tyr Lys  
 355 360 365  
 Ile Leu Leu Asp Val Lys Thr Arg Leu Glu Gln Glu Ile Ala Thr Tyr  
 370 375 380  
 Arg Arg Leu Leu Glu Gly Glu Asp Ala His Leu Thr Gln Tyr Lys Lys  
 385 390 395 400  
 Glu Pro Val Thr Thr Arg Gln Val Arg Thr Ile Val Glu Glu Val Gln  
 405 410 415  
 Asp Gly Lys Val Ile Ser Ser Arg Glu Gln Val His Gln Thr Thr Arg  
 420 425 430  
 <210> 442  
 <211> 469  
 <212> PRT  
 <213> Homo sapiens  
 <400> 442  
 Met Ser Ile His Phe Ser Ser Pro Val Phe Thr Ser Arg Ser Ala Ala  
 1 5 10 15  
 Phe Ser Gly Arg Gly Ala Gln Val Arg Leu Ser Ser Ala Arg Pro Gly  
 20 25 30  
 Gly Leu Gly Ser Ser Ser Leu Tyr Gly Leu Gly Ala Ser Arg Pro Arg  
 35 40 45

Val	Ala	Val	Arg	Ser	Ala	Tyr	Gly	Gly	Pro	Val	Gly	Ala	Gly	Ile	Arg
50						55					60				
Glu	Val	Thr	Ile	Asn	Gln	Ser	Leu	Leu	Ala	Pro	Leu	Arg	Leu	Asp	Ala
65					70					75					80
Asp	Pro	Ser	Leu	Gln	Arg	Val	Arg	Gln	Glu	Glu	Ser	Glu	Gln	Ile	Lys
				85					90					95	
Thr	Leu	Asn	Asn	Lys	Phe	Ala	Ser	Phe	Ile	Asp	Lys	Val	Arg	Phe	Leu
			100					105					110		
Glu	Gln	Gln	Asn	Lys	Leu	Leu	Glu	Thr	Lys	Trp	Thr	Leu	Leu	Gln	Glu
		115					120					125			
Gln	Lys	Ser	Ala	Lys	Ser	Ser	Arg	Leu	Pro	Asp	Ile	Phe	Glu	Ala	Gln
	130						135				140				
Ile	Ala	Gly	Leu	Arg	Gly	Gln	Leu	Glu	Ala	Leu	Gln	Val	Asp	Gly	Gly
145					150					155					160
Arg	Leu	Glu	Ala	Glu	Leu	Arg	Ser	Met	Gln	Asp	Val	Val	Glu	Asp	Phe
				165					170					175	
Lys	Asn	Lys	Tyr	Glu	Asp	Glu	Ile	Asn	Arg	Arg	Thr	Ala	Ala	Glu	Asn
			180					185						190	
Glu	Phe	Val	Val	Leu	Lys	Lys	Asp	Val	Asp	Ala	Ala	Tyr	Met	Ser	Lys
	195						200					205			
Val	Glu	Leu	Glu	Ala	Lys	Val	Asp	Ala	Leu	Asn	Asp	Glu	Ile	Asn	Phe
	210					215					220				
Leu	Arg	Thr	Leu	Asn	Glu	Thr	Glu	Leu	Thr	Glu	Leu	Gln	Ser	Gln	Ile
225					230					235					240
Ser	Asp	Thr	Ser	Val	Val	Leu	Ser	Met	Asp	Asn	Ser	Arg	Ser	Leu	Asp
				245					250					255	
Leu	Asp	Gly	Ile	Ile	Ala	Glu	Val	Lys	Ala	Gln	Tyr	Glu	Glu	Met	Ala
			260					265						270	
Lys	Cys	Ser	Arg	Ala	Glu	Ala	Glu	Ala	Trp	Tyr	Gln	Thr	Lys	Phe	Glu
	275						280						285		
Thr	Leu	Gln	Ala	Gln	Ala	Gly	Lys	His	Gly	Asp	Asp	Leu	Arg	Asn	Thr
	290					295					300				
Arg	Asn	Glu	Ile	Ser	Glu	Met	Asn	Arg	Ala	Ile	Gln	Arg	Leu	Gln	Ala
305					310					315					320
Glu	Ile	Asp	Asn	Ile	Lys	Asn	Gln	Arg	Ala	Lys	Leu	Glu	Ala	Ala	Ile
				325					330					335	
Ala	Glu	Ala	Glu	Glu	Arg	Gly	Glu	Leu	Ala	Leu	Lys	Asp	Ala	Arg	Ala
			340					345					350		
Lys	Gln	Glu	Glu	Leu	Glu	Ala	Ala	Leu	Gln	Arg	Ala	Lys	Gln	Asp	Met
	355						360					365			
Ala	Arg	Gln	Leu	Arg	Glu	Tyr	Gln	Glu	Leu	Met	Ser	Val	Lys	Leu	Ala
	370					375					380				
Leu	Asp	Ile	Glu	Ile	Ala	Thr	Tyr	Arg	Lys	Leu	Leu	Glu	Gly	Glu	Glu
385					390					395					400
Ser	Arg	Leu	Ala	Gly	Asp	Gly	Val	Gly	Ala	Val	Asn	Ile	Ser	Val	Met
			405						410					415	
Asn	Ser	Thr	Gly	Gly	Ser	Ser	Ser	Gly	Gly	Gly	Ile	Gly	Leu	Thr	Leu
			420					425					430		
Gly	Gly	Thr	Met	Gly	Ser	Asn	Ala	Leu	Ser	Phe	Ser	Ser	Ser	Ala	Gly
		435					440					445			
Pro	Gly	Leu	Leu	Lys	Ala	Tyr	Ser	Ile	Arg	Thr	Ala	Ser	Ala	Ser	Arg
	450					455					460				
Arg	Ser	Ala	Arg	Asp											
465															

&lt;210&gt; 443

&lt;211&gt; 486

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 443  
 Met Thr Cys Gly Ser Tyr Cys Gly Gly Arg Ala Phe Ser Cys Ile Ser  
 1 5 10 15  
 Ala Cys Gly Pro Arg Pro Gly Arg Cys Cys Ile Thr Ala Ala Pro Tyr  
 20 25 30  
 Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly Gly Phe Gly Ser His  
 35 40 45  
 Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe Gly  
 50 55 60  
 Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Pro Cys Ile Thr Thr  
 65 70 75 80  
 Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp  
 85 90 95  
 Pro Asn Ala Gln Cys Val Lys Gln Glu Glu Lys Glu Gln Ile Lys Ser  
 100 105 110  
 Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys Val Arg Phe Leu Glu  
 115 120 125  
 Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln Phe Tyr Gln Asn Arg  
 130 135 140  
 Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe Glu Gly Tyr Ile Glu  
 145 150 155 160  
 Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg Leu  
 165 170 175  
 Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys Lys  
 180 185 190  
 Lys Tyr Glu Glu Glu Val Ser Leu Arg Ala Thr Ala Glu Asn Glu Phe  
 195 200 205  
 Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser Asp  
 210 215 220  
 Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu Ile Asp Phe Leu Arg  
 225 230 235 240  
 Arg Leu Tyr Glu Glu Glu Ile Arg Val Leu Gln Ser His Ile Ser Asp  
 245 250 255  
 Thr Ser Val Val Val Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp  
 260 265 270  
 Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg  
 275 280 285  
 Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met  
 290 295 300  
 Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu  
 305 310 315 320  
 Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val  
 325 330 335  
 Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln  
 340 345 350  
 Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys Leu  
 355 360 365  
 Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys  
 370 375 380  
 Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp  
 385 390 395 400  
 Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg  
 405 410 415  
 Leu Cys Glu Gly Val Gly Ser Val Asn Val Cys Val Ser Ser Arg  
 420 425 430  
 Gly Gly Val Val Cys Gly Asp Leu Cys Ala Ser Thr Thr Ala Pro Val  
 435 440 445  
 Val Ser Thr Arg Val Ser Ser Val Pro Ser Asn Ser Asn Val Val Val  
 450 455 460  
 Gly Thr Thr Asn Ala Cys Ala Pro Ser Ala Arg Val Gly Val Cys Gly  
 465 470 475 480  
 Gly Ser Cys Lys Arg Cys  
 485

<210> 444

<211> 111



&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 444

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Met Lys Ala Thr Val Ile Trp His Gly Glu Thr Val Gly Cys Thr Lys
1      5      10      15
Glu Glu Ile Lys Glu Leu Thr His Met Ile Gln Arg Leu Met Ala Lys
      20      25      30
Val Glu Asn Ala Lys Cys Gln Val Trp Gly Ile Cys Ala Gln Gly Gln
      35      40      45
Arg Asp Leu Trp Pro Asn Leu Cys His Thr Ala Tyr Val Cys Pro Thr
      50      55      60
Trp Ile Ser Ala Phe Ile Leu Gln Ser Leu Cys Pro Cys Arg Val Pro
      65      70      75      80
Gly Cys Gly Gln Ser Gly Ser Ala Arg Met Met Lys Ala Arg Gly Leu
      85      90      95
Phe Leu Arg Cys Ser Gln Leu Asn Gly Arg Leu Asp Ile Phe Arg
      100      105      110

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&lt;210&gt; 445

&lt;211&gt; 505

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 445

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Met Thr Cys Gly Ser Gly Phe Gly Gly Arg Ala Phe Ser Cys Ile Ser
1      5      10      15
Ala Cys Gly Pro Arg Pro Gly Arg Cys Ile Thr Ala Ala Pro Tyr
      20      25      30
Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly Gly Phe Gly Ser His
      35      40      45
Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe Gly
      50      55      60
Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Cys Ile Thr Thr
      65      70      75      80
Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp
      85      90      95
Pro Asn Ala Gln Cys Val Lys Gln Glu Lys Glu Gln Ile Lys Ser
      100      105      110
Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys Val Arg Phe Leu Glu
      115      120      125
Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln Phe Tyr Gln Asn Arg
      130      135      140
Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe Glu Gly Tyr Ile Glu
      145      150      155      160
Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg Leu
      165      170      175
Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys Lys
      180      185      190
Lys Tyr Glu Glu Val Ser Leu Arg Ala Thr Ala Glu Asn Glu Phe
      195      200      205
Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser Asp
      210      215      220
Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu Ile Asp Phe Leu Arg
      225      230      235      240
Arg Leu Tyr Glu Glu Ile Arg Ile Leu Gln Ser His Ile Ser Asp
      245      250      255

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- 250 -

Thr Ser Val Val Val Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp  
 260 265 270  
 Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg  
 275 280 285  
 Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met  
 290 295 300  
 Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu  
 305 310 315 320  
 Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val  
 325 330 335  
 Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln  
 340 345 350  
 Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys Leu  
 355 360 365  
 Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys  
 370 375 380  
 Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp  
 385 390 395 400  
 Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg  
 405 410 415  
 Leu Cys Glu Gly Ile Gly Ala Val Asn Val Cys Val Ser Ser Ser Arg  
 420 425 430  
 Gly Gly Val Val Cys Gly Asp Leu Cys Val Ser Gly Ser Arg Pro Val  
 435 440 445  
 Thr Gly Ser Val Cys Ser Ala Pro Cys Asn Gly Asn Val Ala Val Ser  
 450 455 460  
 Thr Gly Leu Cys Ala Pro Cys Gly Gln Leu Asn Thr Thr Cys Gly Gly  
 465 470 475 480  
 Gly Ser Cys Gly Val Gly Ser Cys Gly Ile Ser Ser Leu Gly Val Gly  
 485 490 495  
 Ser Cys Gly Ser Ser Cys Arg Lys Cys  
 500 505  
 <210> 446  
 <211> 486  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Thr Cys Gly Ser Tyr Cys Gly Gly Arg Ala Phe Ser Cys Ile Ser  
 1 5 10 15  
 Ala Cys Gly Pro Arg Pro Gly Arg Cys Cys Ile Thr Ala Ala Pro Tyr  
 20 25 30  
 Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly Gly Phe Gly Ser His  
 35 40 45  
 Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe Gly  
 50 55 60  
 Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Cys Ile Thr Thr  
 65 70 75 80  
 Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp  
 85 90 95  
 Pro Asn Ala Gln Cys Val Lys Gln Glu Glu Lys Glu Gln Ile Lys Ser  
 100 105 110  
 Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys Val Arg Phe Leu Glu  
 115 120 125  
 Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln Phe Tyr Gln Asn Arg  
 130 135 140  
 Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe Glu Gly Tyr Ile Glu  
 145 150 155 160  
 Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg Leu  
 165 170 175

Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys Lys  
 180 185 190  
 Lys Tyr Glu Glu Glu Val Ser Leu Arg Ala Thr Ala Glu Asn Glu Phe  
 195 200 205  
 Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser Asp  
 210 215 220  
 Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu Ile Asp Phe Leu Arg  
 225 230 235 240  
 Arg Leu Tyr Glu Glu Glu Ile Arg Val Leu Gln Ser His Ile Ser Asp  
 245 250 255  
 Thr Ser Val Val Val Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp  
 260 265 270  
 Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg  
 275 280 285  
 Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met  
 290 295 300  
 Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu  
 305 310 315 320  
 Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val  
 325 330 335  
 Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln  
 340 345 350  
 Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys Leu  
 355 360 365  
 Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys  
 370 375 380  
 Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp  
 385 390 395 400  
 Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg  
 405 410 415  
 Leu Cys Glu Gly Val Gly Ser Val Asn Val Cys Val Ser Ser Ser Arg  
 420 425 430  
 Gly Gly Val Val Cys Gly Asp Leu Cys Ala Ser Thr Thr Ala Pro Val  
 435 440 445  
 Val Ser Thr Arg Val Ser Ser Val Pro Ser Asn Ser Asn Val Val Val  
 450 455 460  
 Gly Thr Thr Asn Ala Cys Ala Pro Ser Ala Arg Val Gly Val Cys Gly  
 465 470 475 480  
 Gly Ser Cys Lys Arg Cys  
 485  
 <210> 447  
 <211> 493  
 <212> PRT  
 <213> Homo sapiens

<400> 447  
 Met Thr Cys Gly Phe Asn Ser Ile Gly Cys Gly Phe Arg Pro Gly Asn  
 1 5 10 15  
 Phe Ser Cys Val Ser Ala Cys Gly Pro Arg Pro Ser Arg Cys Cys Ile  
 20 25 30  
 Thr Ala Ala Pro Tyr Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly  
 35 40 45  
 Gly Phe Gly Ser His Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys  
 50 55 60  
 Gly Arg Ser Phe Gly Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro  
 65 70 75 80  
 Pro Cys Ile Thr Thr Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu  
 85 90 95  
 Asn Leu Glu Ile Asp Pro Asn Ala Gln Cys Val Lys Gln Glu Lys  
 100 105 110

Glu Gln Ile Lys Ser Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys  
 115 120 125  
 Val Arg Phe Leu Glu Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln  
 130 135 140  
 Phe Tyr Gln Asn Cys Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe  
 145 150 155 160  
 Ala Gly Tyr Ile Glu Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala  
 165 170 175  
 Asp Ser Gly Arg Leu Ala Ser Glu Leu Asn His Val Gln Glu Val Leu  
 180 185 190  
 Glu Gly Tyr Lys Lys Lys Tyr Glu Glu Glu Val Ala Leu Arg Ala Thr  
 195 200 205  
 Ala Glu Asn Glu Phe Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr  
 210 215 220  
 Leu Arg Lys Ser Asp Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu  
 225 230 235 240  
 Ile Asp Phe Leu Arg Arg Leu Tyr Glu Glu Glu Ile Arg Ile Leu Gln  
 245 250 255  
 Ser His Ile Ser Asp Thr Ser Val Val Lys Leu Asp Asn Ser Arg  
 260 265 270  
 Asp Leu Asn Met Asp Cys Ile Val Ala Glu Ile Lys Ala Gln Tyr Asp  
 275 280 285  
 Asp Ile Ala Thr Arg Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser  
 290 295 300  
 Lys Cys Glu Glu Met Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu  
 305 310 315 320  
 Arg Arg Thr Lys Glu Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg  
 325 330 335  
 Leu Thr Ala Glu Val Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu  
 340 345 350  
 Ala Ala Val Ala Gln Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp  
 355 360 365  
 Ala Arg Cys Lys Leu Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys  
 370 375 380  
 Gln Asp Met Ala Cys Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser  
 385 390 395 400  
 Lys Leu Gly Leu Asp Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu  
 405 410 415  
 Gly Glu Glu Gln Arg Leu Cys Glu Gly Val Glu Ala Val Asn Val Cys  
 420 425 430  
 Val Ser Ser Ser Arg Gly Gly Val Val Cys Gly Asp Leu Cys Val Ser  
 435 440 445  
 Gly Ser Arg Pro Val Thr Gly Ser Val Cys Ser Ala Pro Cys Asn Gly  
 450 455 460  
 Asn Leu Val Val Ser Thr Gly Leu Cys Lys Pro Cys Gly Gln Leu Asn  
 465 470 475 480  
 Thr Thr Cys Gly Gly Ser Cys Gly Gln Gly Arg Tyr  
 485 490

&lt;210&gt; 448

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 448

Met Ala Ser Gln Ser Cys His Ile Ser Ser Gly Cys Gly Val Lys Asn  
 1 5 10 15  
 Phe Ser Ser Arg Ser Ala Thr Val Pro Lys Pro Gly Tyr His Ser Cys  
 20 25 30  
 Val Ser Ala Met Ala His His Gly Val Ser Pro Gly Gly Leu Gly Ser  
 35 40 45

Arg Arg Leu Gly Gly Phe Gly Ser Gln Ser Leu Cys Thr Val Gly Ser  
 50 55 60  
 Pro Arg Ile Ala Val Ser Cys Arg Trp Pro Leu His Ser Arg Gly Arg  
 65 70 75 80  
 Phe Gly Tyr Trp Ala Gly Gly Leu Cys Arg Pro Ser Pro Pro Arg Ile  
 85 90 95  
 Thr Ser Val Thr Ile Asn Glu Ser Leu Leu Met Pro Leu Asn Leu Glu  
 100 105 110  
 Ile Asp Pro Asn Ala Gln Cys Val Lys His Glu Glu Lys Glu His Ile  
 115 120 125  
 Arg Cys Leu Asn Lys Phe Ala Phe Ile Asp Lys Val Gly Leu  
 130 135 140  
 <210> 449  
 <211> 507  
 <212> PRT  
 <213> Homo sapiens

<400> 449  
 Met Ser Cys Arg Ser Tyr Arg Ile Ser Ser Gly Cys Gly Val Thr Arg  
 1 5 10 15  
 Asn Phe Ser Ser Cys Ser Ala Val Ala Pro Lys Thr Gly Asn Arg Cys  
 20 25 30  
 Cys Ile Ser Ala Ala Pro Tyr Arg Gly Val Ser Cys Tyr Arg Gly Leu  
 35 40 45  
 Thr Gly Phe Gly Ser Arg Ser Leu Cys Asn Leu Gly Ser Cys Gly Pro  
 50 55 60  
 Arg Ile Ala Val Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe  
 65 70 75 80  
 Gly Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Pro Cys Ile Thr  
 85 90 95  
 Thr Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile  
 100 105 110  
 Asp Pro Asn Ala Gln Cys Val Lys Gln Glu Glu Lys Glu Gln Ile Lys  
 115 120 125  
 Ser Leu Asn Ser Arg Phe Ala Phe Ile Asp Lys Val Arg Phe Leu  
 130 135 140  
 Glu Gln Gln Asn Lys Leu Leu Glu Thr Lys Trp Gln Phe Tyr Gln Asn  
 145 150 155 160  
 Gln Arg Cys Cys Glu Ser Asn Leu Glu Pro Leu Phe Ser Gly Tyr Ile  
 165 170 175  
 Glu Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg  
 180 185 190  
 Leu Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys  
 195 200 205  
 Lys Lys Tyr Glu Glu Glu Val Ala Leu Arg Ala Thr Ala Glu Asn Glu  
 210 215 220  
 Phe Val Val Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser  
 225 230 235 240  
 Asp Leu Glu Ala Asn Val Glu Ala Leu Val Glu Glu Ser Ser Phe Leu  
 245 250 255  
 Arg Arg Leu Tyr Glu Glu Glu Ile Arg Val Leu Gln Ala His Ile Ser  
 260 265 270  
 Asp Thr Ser Val Ile Val Lys Met Asp Asn Ser Arg Asp Leu Asn Met  
 275 280 285  
 Asp Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Val Ala Ser  
 290 295 300  
 Arg Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu  
 305 310 315 320  
 Met Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys  
 325 330 335

Glu Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu  
 340 345 350  
 Ile Glu Asn Ala Lys Cys Gln Arg Ala Lys Leu Glu Ala Ala Val Ala  
 355 360 365  
 Glu Ala Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys  
 370 375 380  
 Leu Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala  
 385 390 395 400  
 Cys Leu Leu Lys Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu  
 405 410 415  
 Asp Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu His  
 420 425 430  
 Arg Leu Cys Glu Gly Val Gly Ser Val Asn Val Cys Val Ser Ser Ser  
 435 440 445  
 Arg Gly Gly Val Ser Cys Gly Gly Leu Ser Tyr Ser Thr Thr Pro Gly  
 450 455 460  
 Arg Gln Ile Thr Ser Gly Pro Ser Ala Ile Gly Gly Ser Ile Thr Val  
 465 470 475 480  
 Val Ala Pro Asp Ser Cys Ala Pro Cys Gln Pro Arg Ser Ser Ser Phe  
 485 490 495  
 Ser Cys Gly Ser Ser Arg Ser Val Arg Phe Ala  
 500 505  
 <210> 450  
 <211> 600  
 <212> PRT  
 <213> Homo sapiens

<400> 450  
 Met Ser Cys Arg Ser Tyr Arg Val Ser Ser Gly His Arg Val Gly Asn  
 1 5 10 15  
 Phe Ser Ser Cys Ser Ala Met Thr Pro Gln Asn Leu Asn Arg Phe Arg  
 20 25 30  
 Ala Asn Ser Val Ser Cys Trp Ser Gly Pro Gly Phe Arg Gly Leu Gly  
 35 40 45  
 Ser Phe Gly Ser Arg Ser Val Ile Thr Phe Gly Ser Tyr Ser Pro Arg  
 50 55 60  
 Ile Ala Ala Val Gly Ser Arg Pro Ile His Cys Gly Val Arg Phe Gly  
 65 70 75 80  
 Ala Gly Cys Gly Met Gly Phe Gly Asp Gly Arg Gly Val Gly Leu Gly  
 85 90 95  
 Pro Arg Ala Asp Ser Cys Val Gly Leu Gly Phe Gly Ala Gly Ser Gly  
 100 105 110  
 Ile Gly Tyr Gly Phe Gly Gly Pro Gly Phe Gly Tyr Arg Val Gly Gly  
 115 120 125  
 Val Gly Val Pro Ala Ala Pro Ser Ile Thr Ala Val Thr Val Asn Lys  
 130 135 140  
 Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp Pro Asn Ala Gln Arg  
 145 150 155 160  
 Val Lys Lys Asp Glu Lys Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe  
 165 170 175  
 Ala Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Lys Leu  
 180 185 190  
 Leu Glu Thr Lys Trp Ser Phe Leu Gln Glu Gln Lys Cys Ile Arg Ser  
 195 200 205  
 Asn Leu Glu Pro Leu Phe Glu Ser Tyr Ile Thr Asn Leu Arg Arg Gln  
 210 215 220  
 Leu Glu Val Leu Val Ser Asp Gln Ala Arg Leu Gln Ala Glu Arg Asn  
 225 230 235 240  
 His Leu Gln Asp Val Leu Glu Gly Phe Lys Lys Lys Tyr Glu Glu Glu  
 245 250 255

Val Val Cys Arg Ala Asn Ala Glu Asn Glu Phe Val Ala Leu Lys Lys  
 260 265 270  
 Asp Val Asp Ala Ala Phe Met Asn Lys Ser Asp Leu Glu Ala Asn Val  
 275 280 285  
 Asp Thr Leu Thr Gln Glu Ile Asp Phe Leu Lys Thr Leu Tyr Met Glu  
 290 295 300  
 Glu Ile Gln Leu Leu Gln Ser His Ile Ser Glu Thr Ser Val Ile Val  
 305 310 315 320  
 Lys Met Asp Asn Ser Arg Asp Leu Asn Leu Asp Gly Ile Ile Ala Glu  
 325 330 335  
 Val Lys Ala Gln Tyr Glu Glu Val Ala Arg Arg Ser Arg Ala Asp Ala  
 340 345 350  
 Glu Ala Trp Tyr Gln Thr Lys Tyr Glu Glu Met Gln Val Thr Ala Gly  
 355 360 365  
 Gln His Cys Asp Asn Leu Arg Asn Ile Arg Asn Glu Ile Asn Glu Leu  
 370 375 380  
 Thr Arg Leu Ile Gln Arg Leu Lys Ala Glu Ile Glu His Ala Lys Ala  
 385 390 395 400  
 Gln Arg Ala Lys Leu Glu Ala Ala Val Ala Glu Ala Glu Gln Gln Gly  
 405 410 415  
 Glu Ala Thr Leu Ser Asp Ala Lys Cys Lys Leu Ala Asp Leu Glu Cys  
 420 425 430  
 Ala Leu Gln Gln Ala Lys Gln Asp Met Ala Arg Gln Leu Cys Glu Tyr  
 435 440 445  
 Gln Glu Leu Met Asn Ala Lys Leu Gly Leu Asp Ile Glu Ile Ala Thr  
 450 455 460  
 Tyr Arg Arg Leu Leu Glu Gly Glu Glu Ser Arg Leu Cys Glu Gly Val  
 465 470 475 480  
 Gly Pro Val Asn Ile Ser Val Ser Ser Ser Arg Gly Gly Leu Val Cys  
 485 490 495  
 Gly Pro Glu Pro Leu Val Ala Gly Ser Thr Leu Ser Arg Gly Gly Val  
 500 505 510  
 Thr Phe Ser Gly Ser Ser Ser Val Cys Ala Thr Ser Gly Val Leu Ala  
 515 520 525  
 Ser Cys Gly Pro Ser Leu Gly Gly Ala Arg Val Ala Pro Ala Thr Gly  
 530 535 540  
 Asp Leu Leu Ser Thr Gly Thr Arg Ser Gly Ser Met Leu Ile Ser Glu  
 545 550 555 560  
 Ala Cys Val Pro Ser Val Pro Cys Pro Leu Pro Thr Gln Gly Gly Phe  
 565 570 575  
 Ser Ser Cys Ser Gly Gly Arg Ser Ser Ser Val Arg Phe Val Ser Thr  
 580 585 590  
 Thr Thr Ser Cys Arg Thr Lys Tyr  
 595 600

&lt;210&gt; 451

&lt;211&gt; 513

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 451

Met Ser Tyr His Ser Phe Gln Pro Gly Ser Arg Cys Gly Ser Gln Ser  
 1 5 10 15  
 Phe Ser Ser Tyr Ser Ala Val Met Pro Arg Met Val Thr His Tyr Ala  
 20 25 30  
 Val Ser Lys Gly Pro Cys Arg Pro Gly Gly Gly Arg Gly Leu Arg Ala  
 35 40 45  
 Leu Gly Cys Leu Gly Ser Arg Ser Leu Cys Asn Val Gly Phe Gly Arg  
 50 55 60  
 Pro Arg Val Ala Ser Arg Cys Gly Gly Thr Leu Pro Gly Phe Gly Tyr  
 65 70 75 80

Arg Leu Gly Ala Thr Cys Gly Pro Ser Ala Cys Ile Thr Pro Val Thr  
 85 90 95  
 Ile Asn Glu Ser Leu Leu Val Pro Leu Ala Leu Glu Ile Asp Pro Thr  
 100 105 110  
 Val Gln Arg Val Lys Arg Asp Glu Lys Glu Gln Ile Lys Cys Leu Asn  
 115 120 125  
 Asn Arg Phe Ala Ser Phe Ile Asn Lys Val Arg Phe Leu Glu Gln Lys  
 130 135 140  
 Asn Lys Leu Leu Glu Thr Lys Trp Asn Phe Met Gln Gln Gln Arg Cys  
 145 150 155 160  
 Cys Gln Thr Asn Ile Glu Pro Ile Phe Glu Gly Tyr Ile Ser Ala Leu  
 165 170 175  
 Arg Arg Gln Leu Asp Cys Val Ser Gly Asp Arg Val Arg Leu Glu Ser  
 180 185 190  
 Glu Leu Cys Ser Leu Gln Ala Ala Leu Glu Gly Tyr Lys Lys Lys Tyr  
 195 200 205  
 Glu Glu Glu Leu Ser Leu Arg Pro Cys Val Glu Asn Glu Phe Val Ala  
 210 215 220  
 Leu Lys Lys Asp Val Asp Thr Ala Phe Leu Met Lys Ala Asp Leu Glu  
 225 230 235 240  
 Thr Asn Ala Glu Ala Leu Val Gln Glu Ile Asp Phe Leu Lys Ser Leu  
 245 250 255  
 Tyr Glu Glu Glu Ile Cys Leu Leu Gln Ser Gln Ile Ser Glu Thr Ser  
 260 265 270  
 Val Ile Val Lys Met Asp Asn Ser Arg Glu Leu Asp Val Asp Gly Ile  
 275 280 285  
 Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Ala Ser Arg Ser Lys  
 290 295 300  
 Ala Glu Ala Glu Ala Trp Tyr Gln Cys Arg Tyr Glu Glu Leu Arg Val  
 305 310 315 320  
 Thr Ala Gly Asn His Cys Asp Asn Leu Arg Asn Arg Lys Asn Glu Ile  
 325 330 335  
 Leu Glu Met Asn Lys Leu Ile Gln Arg Leu Gln Gln Glu Thr Glu Asn  
 340 345 350  
 Val Lys Ala Gln Arg Cys Lys Leu Glu Gly Ala Ile Ala Glu Ala Glu  
 355 360 365  
 Gln Gln Gly Glu Ala Ala Leu Asn Asp Ala Lys Cys Lys Leu Ala Gly  
 370 375 380  
 Leu Glu Glu Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys Leu Leu  
 385 390 395 400  
 Lys Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp Ile Glu  
 405 410 415  
 Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu His Arg Leu Cys  
 420 425 430  
 Glu Gly Ile Gly Pro Val Asn Ile Ser Val Ser Ser Ser Lys Gly Ala  
 435 440 445  
 Phe Leu Tyr Glu Pro Cys Gly Val Ser Thr Pro Val Leu Ser Thr Gly  
 450 455 460  
 Val Leu Arg Ser Asn Gly Gly Cys Ser Ile Val Gly Thr Gly Glu Leu  
 465 470 475 480  
 Tyr Val Pro Cys Glu Pro Gln Gly Leu Leu Ser Cys Gly Ser Gly Arg  
 485 490 495  
 Lys Ser Ser Met Thr Leu Gly Ala Gly Gly Ser Ser Pro Ser His Lys  
 500 505 510  
 His

&lt;210&gt; 452

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 452

Met Asp Ala Val Tyr Met Asn Lys Val Gly Leu Glu Ala Lys Val Asp  
 1 5 10 15  
 Ala Leu Met Glu Thr Asn Phe Leu Ser Thr Phe Tyr Lys Ala Val  
 20 25 30  
 Arg Val Pro Gly Ala Pro Ser Asn Arg Gly Ala Gly Gly Trp Val Leu  
 35 40 45  
 Glu Pro Gln Leu Gly Thr Glu Pro Val Gly Ser Phe Pro Gly Leu Leu  
 50 55 60  
 Ser Ala Pro Tyr Pro Thr Cys Val Leu Gln Gly Arg Cys His Phe Pro  
 65 70 75 80  
 Tyr His Arg Arg Lys  
 85

&lt;210&gt; 453

&lt;211&gt; 564

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 453

Met Ala Ser Thr Ser Thr Thr Ile Arg Ser His Ser Ser Ser Arg Arg  
 1 5 10 15  
 Gly Phe Ser Ala Ser Ser Ala Arg Leu Pro Gly Val Ser Arg Ser Gly  
 20 25 30  
 Phe Ser Ser Ile Ser Val Ser Arg Ser Arg Gly Ser Gly Gly Leu Gly  
 35 40 45  
 Gly Ala Cys Gly Gly Ala Gly Phe Gly Ser Arg Ser Leu Tyr Gly Leu  
 50 55 60  
 Gly Gly Ser Lys Arg Ile Ser Ile Gly Gly Gly Ser Cys Ala Ile Ser  
 65 70 75 80  
 Gly Gly Tyr Gly Ser Arg Ala Gly Gly Ser Tyr Gly Phe Gly Gly Ala  
 85 90 95  
 Gly Ser Gly Phe Gly Phe Gly Gly Gly Ala Gly Ile Gly Phe Gly Leu  
 100 105 110  
 Gly Gly Gly Ala Gly Leu Ala Gly Gly Phe Gly Gly Pro Gly Phe Pro  
 115 120 125  
 Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Val Asn Gln Ser Leu  
 130 135 140  
 Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Ala Ile Gln Arg Val Arg  
 145 150 155 160  
 Ala Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser  
 165 170 175  
 Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Lys Val Leu Asp  
 180 185 190  
 Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr Lys Thr Val Arg Gln  
 195 200 205  
 Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn Asn Leu Arg Arg Gln  
 210 215 220  
 Leu Asp Ser Ile Val Gly Glu Arg Gly Arg Leu Asp Ser Glu Leu Arg  
 225 230 235 240  
 Asn Met Gln Asp Leu Val Glu Asp Leu Lys Asn Lys Tyr Glu Asp Glu  
 245 250 255  
 Ile Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Thr Leu Lys Lys  
 260 265 270  
 Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu Leu Gln Ala Lys Ala  
 275 280 285  
 Asp Thr Leu Thr Asp Glu Ile Asn Phe Leu Arg Ala Leu Tyr Asp Ala  
 290 295 300  
 Glu Leu Ser Gln Met Gln Thr His Ile Ser Asp Thr Ser Val Val Leu  
 305 310 315 320  
 Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala Glu  
 325 330 335

Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser Arg Ala Glu Ala  
 340 345 350  
 Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu Gln Val Thr Ala Gly  
 355 360 365  
 Arg His Gly Asp Asp Leu Arg Asn Thr Lys Gln Glu Ile Ala Glu Ile  
 370 375 380  
 Asn Arg Met Ile Gln Arg Leu Arg Ser Glu Ile Asp His Val Lys Lys  
 385 390 395 400  
 Gln Cys Ala Asn Leu Gln Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly  
 405 410 415  
 Glu Met Ala Leu Lys Asp Ala Lys Asn Lys Leu Glu Gly Leu Glu Asp  
 420 425 430  
 Ala Leu Gln Lys Ala Lys Gln Asp Leu Ala Arg Leu Leu Lys Glu Tyr  
 435 440 445  
 Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Val Glu Ile Ala Thr  
 450 455 460  
 Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Leu Asn Gly Glu Gly  
 465 470 475 480  
 Val Gly Gln Val Asn Ile Ser Val Val Gln Ser Thr Val Ser Ser Gly  
 485 490 495  
 Tyr Gly Gly Ala Ser Gly Val Gly Ser Gly Leu Gly Leu Gly Gly Gly  
 500 505 510  
 Ser Ser Tyr Ser Tyr Gly Ser Gly Leu Gly Val Gly Gly Gly Phe Ser  
 515 520 525  
 Ser Ser Ser Gly Arg Ala Thr Gly Gly Gly Leu Ser Ser Val Gly Gly  
 530 535 540  
 Gly Ser Ser Thr Ile Lys Tyr Thr Thr Thr Ser Ser Ser Ser Arg Lys  
 545 550 555 560  
 Ser Tyr Lys His

<210> 454

<211> 564

<212> PRT

<213> Homo sapiens

<400> 454  
 Met Ala Ser Thr Ser Thr Thr Ile Arg Ser His Ser Ser Ser Arg Arg  
 1 5 10 15  
 Gly Phe Ser Ala Asn Ser Ala Arg Leu Pro Gly Val Ser Arg Ser Gly  
 20 25 30  
 Phe Ser Ser Ile Ser Val Ser Arg Ser Arg Gly Ser Gly Leu Gly  
 35 40 45  
 Gly Ala Cys Gly Gly Ala Gly Phe Gly Ser Arg Ser Leu Tyr Gly Leu  
 50 55 60  
 Gly Gly Ser Lys Arg Ile Ser Ile Gly Gly Gly Ser Cys Ala Ile Ser  
 65 70 75 80  
 Gly Gly Tyr Gly Ser Arg Ala Arg Gly Ser Tyr Gly Phe Gly Gly Ala  
 85 90 95  
 Gly Ser Gly Phe Gly Phe Gly Gly Gly Ala Gly Ile Gly Phe Asp Leu  
 100 105 110  
 Gly Gly Gly Ala Gly Leu Ala Gly Gly Phe Gly Gly Pro Gly Phe Pro  
 115 120 125  
 Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Val Asn Gln Ser Leu  
 130 135 140  
 Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Ala Ile Gln Arg Val Arg  
 145 150 155 160  
 Ala Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser  
 165 170 175  
 Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Asn Lys Val Leu Asp  
 180 185 190

Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr Lys Thr Val Arg Gln  
 195 200 205  
 Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn Asn Leu Arg Arg Gln  
 210 215 220  
 Leu Asp Asn Ile Val Gly Glu Arg Gly Arg Leu Asp Ser Glu Leu Arg  
 225 230 235 240  
 Asn Met Gln Asp Leu Val Glu Asp Leu Lys Asn Lys Tyr Glu Asp Glu  
 245 250 255  
 Ile Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Thr Leu Lys Lys  
 260 265 270  
 Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu Leu Gln Ala Lys Ala  
 275 280 285  
 Asp Thr Leu Thr Asp Glu Ile Asn Phe Leu Arg Ala Leu Tyr Asp Ala  
 290 295 300  
 Glu Leu Ser Gln Met Gln Thr His Ile Ser Asp Thr Ser Val Val Leu  
 305 310 315 320  
 Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala Glu  
 325 330 335  
 Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser Arg Ala Glu Ala  
 340 345 350  
 Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu Gln Val Thr Ala Gly  
 355 360 365  
 Arg His Gly Asp Asp Leu Arg Asn Thr Lys Gln Glu Ile Ala Glu Ile  
 370 375 380  
 Asn Arg Met Ile Gln Arg Leu Arg Ser Glu Ile Asp His Val Lys Lys  
 385 390 395 400  
 Gln Cys Ala Ser Leu Gln Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly  
 405 410 415  
 Glu Met Ala Leu Lys Asp Ala Lys Asn Lys Leu Glu Gly Leu Glu Asp  
 420 425 430  
 Ala Leu Gln Lys Ala Lys Gln Asp Leu Ala Arg Leu Leu Lys Glu Tyr  
 435 440 445  
 Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Val Glu Ile Ala Thr  
 450 455 460  
 Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Leu Asn Gly Glu Gly  
 465 470 475 480  
 Ile Gly Gln Val Asn Val Ser Val Val Gln Ser Thr Ile Ser Ser Gly  
 485 490 495  
 Tyr Gly Gly Ala Ser Gly Val Gly Ser Gly Leu Gly Leu Gly Gly Gly  
 500 505 510  
 Ser Ser Tyr Ser Tyr Gly Ser Gly Leu Gly Ile Gly Gly Phe Ser  
 515 520 525  
 Ser Ser Ser Gly Arg Ala Ile Gly Gly Gly Leu Ser Ser Val Gly Gly  
 530 535 540  
 Gly Ser Ser Thr Ile Lys Tyr Thr Thr Thr Ser Ser Ser Arg Lys  
 545 550 555 560  
 Ser Tyr Lys His

&lt;210&gt; 455

&lt;211&gt; 564

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 455

Met Ala Ser Thr Ser Thr Thr Ile Arg Ser His Ser Ser Ser Arg Arg  
 1 5 10 15  
 Gly Phe Ser Ala Asn Ser Ala Arg Leu Pro Gly Val Ser Arg Ser Gly  
 20 25 30  
 Phe Ser Ser Ile Ser Val Ser Arg Ser Arg Gly Ser Gly Gly Leu Gly  
 35 40 45

Gly Ala Cys Gly Gly Ala Gly Phe Gly Ser Arg Ser Leu Tyr Gly Leu  
 50 55 60  
 Gly Gly Ser Lys Arg Ile Ser Ile Gly Gly Gly Ser Cys Ala Ile Ser  
 65 70 75 80  
 Gly Gly Tyr Gly Ser Arg Ala Arg Ala Ser Tyr Gly Phe Gly Gly Ala  
 85 90 95  
 Gly Ser Gly Phe Gly Phe Gly Gly Gly Ala Gly Ile Gly Phe Asp Leu  
 100 105 110  
 Gly Gly Gly Ala Gly Leu Ala Gly Gly Phe Gly Gly Pro Gly Phe Pro  
 115 120 125  
 Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Val Asn Gln Ser Leu  
 130 135 140  
 Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Ala Ile Gln Arg Val Arg  
 145 150 155 160  
 Ala Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser  
 165 170 175  
 Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Lys Val Leu Glu  
 180 185 190  
 Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr Lys Thr Val Arg Gln  
 195 200 205  
 Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn Asn Leu Arg Arg Gln  
 210 215 220  
 Leu Asp Ser Ile Val Gly Glu Arg Gly Arg Leu Asp Ser Glu Leu Arg  
 225 230 235 240  
 Gly Met Gln Asp Leu Val Glu Asp Phe Lys Asn Lys Tyr Glu Asp Glu  
 245 250 255  
 Ile Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Thr Leu Lys Lys  
 260 265 270  
 Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu Leu Gln Ala Lys Ala  
 275 280 285  
 Asp Thr Leu Thr Asp Glu Ile Asn Phe Leu Arg Ala Leu Tyr Asp Ala  
 290 295 300  
 Glu Leu Ser Gln Met Gln Thr His Ile Ser Asp Thr Ser Val Val Leu  
 305 310 315 320  
 Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala Glu  
 325 330 335  
 Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser Arg Ala Glu Ala  
 340 345 350  
 Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu Gln Val Thr Ala Gly  
 355 360 365  
 Arg His Gly Asp Asp Leu Arg Asn Thr Lys Gln Glu Ile Ala Glu Ile  
 370 375 380  
 Asn Arg Met Ile Gln Arg Leu Arg Ser Glu Ile Asp His Val Lys Lys  
 385 390 395 400  
 Gln Cys Ala Asn Leu Gln Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly  
 405 410 415  
 Glu Met Ala Leu Lys Asp Ala Lys Asn Lys Leu Glu Gly Leu Glu Asp  
 420 425 430  
 Ala Leu Gln Lys Ala Lys Gln Asp Leu Ala Arg Leu Leu Lys Glu Tyr  
 435 440 445  
 Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Val Glu Ile Ala Thr  
 450 455 460  
 Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Leu Asn Gly Glu Gly  
 465 470 475 480  
 Val Gly Gln Val Asn Ile Ser Val Val Gln Ser Thr Val Ser Ser Gly  
 485 490 495  
 Tyr Gly Gly Ala Ser Gly Val Gly Ser Gly Leu Gly Leu Gly Gly Gly  
 500 505 510  
 Ser Ser Tyr Ser Tyr Gly Ser Gly Leu Gly Val Gly Gly Phe Ser  
 515 520 525  
 Ser Ser Ser Gly Arg Ala Ile Gly Gly Gly Leu Ser Ser Val Gly Gly  
 530 535 540  
 Gly Ser Ser Thr Ile Lys Tyr Thr Thr Thr Ser Ser Ser Arg Lys  
 545 550 555 560  
 Ser Tyr Lys His

&lt;210&gt; 456

&lt;211&gt; 564

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 456

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Met Ala Ser Thr Ser Thr Thr Ile Arg Ser His Ser Ser Ser Arg Arg
1      5      10      15
Gly Phe Ser Ala Asn Ser Ala Arg Leu Pro Gly Val Ser Arg Ser Gly
20      25      30
Phe Ser Ser Val Ser Val Ser Arg Ser Arg Gly Ser Gly Gly Leu Gly
35      40      45
Gly Ala Cys Gly Gly Ala Gly Phe Gly Ser Arg Ser Leu Tyr Gly Leu
50      55      60
Gly Gly Ser Lys Arg Ile Ser Ile Gly Gly Gly Ser Cys Ala Ile Ser
65      70      75      80
Gly Gly Tyr Gly Ser Arg Ala Gly Gly Ser Tyr Gly Phe Gly Gly Ala
85      90      95
Gly Ser Gly Phe Gly Phe Gly Gly Ala Gly Ile Gly Phe Gly Leu
100      105      110
Gly Gly Gly Ala Gly Leu Ala Gly Gly Phe Gly Gly Pro Gly Phe Pro
115      120      125
Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Val Asn Gln Ser Leu
130      135      140
Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Thr Ile Gln Arg Val Arg
145      150      155      160
Ala Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser
165      170      175
Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Lys Val Leu Glu
180      185      190
Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr Lys Thr Val Arg Gln
195      200      205
Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn Asn Leu Arg Arg Gln
210      215      220
Leu Asp Ser Ile Val Gly Glu Arg Gly Arg Leu Asp Ser Glu Leu Arg
225      230      235      240
Gly Met Gln Asp Leu Val Glu Asp Phe Lys Asn Lys Tyr Glu Asp Glu
245      250      255
Ile Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Thr Leu Lys Lys
260      265      270
Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu Leu Gln Ala Lys Ala
275      280      285
Asp Thr Leu Thr Asp Glu Ile Asn Phe Leu Arg Ala Leu Tyr Asp Ala
290      295      300
Glu Leu Ser Gln Met Gln Thr His Ile Ser Asp Thr Ser Val Val Leu
305      310      315      320
Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala Glu
325      330      335
Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser Arg Ala Glu Ala
340      345      350
Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu Gln Val Thr Ala Gly
355      360      365
Arg His Gly Asp Asp Leu Arg Asn Thr Lys Gln Glu Ile Ala Glu Ile
370      375      380
Asn Arg Met Ile Gln Arg Leu Arg Ser Glu Ile Asp His Val Lys Lys
385      390      395      400
Gln Cys Ala Asn Leu Gln Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly
405      410      415
Glu Met Ala Leu Lys Asp Ala Lys Asn Lys Leu Glu Gly Leu Glu Asp
420      425      430

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Ala Leu Gln Lys Ala Lys Gln Asp Leu Ala Arg Leu Leu Lys Glu Tyr  
 435 440 445  
 Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Val Glu Ile Ala Thr  
 450 455 460  
 Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Leu Asn Gly Glu Gly  
 465 470 475 480  
 Val Gly Gln Val Asn Ile Ser Val Val Gln Ser Thr Val Ser Ser Gly  
 485 490 495  
 Tyr Gly Gly Ala Ser Gly Val Gly Ser Gly Leu Gly Leu Gly Gly Gly  
 500 505 510  
 Ser Ser Tyr Ser Tyr Gly Ser Gly Leu Gly Val Gly Gly Phe Ser  
 515 520 525  
 Ser Ser Ser Gly Arg Ala Ile Gly Gly Gly Leu Ser Ser Val Gly Gly  
 530 535 540  
 Gly Ser Ser Thr Ile Lys Tyr Thr Thr Thr Ser Ser Ser Ser Arg Lys  
 545 550 555 560  
 Ser Tyr Lys His

&lt;210&gt; 457

&lt;211&gt; 590

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 457

Met Ser Arg Gln Ser Ser Val Ser Phe Arg Ser Gly Gly Ser Arg Ser  
 1 5 10 15  
 Phe Ser Thr Ala Ser Ala Ile Thr Pro Ser Val Ser Arg Thr Ser Phe  
 20 25 30  
 Thr Ser Val Ser Arg Ser Gly Gly Gly Gly Gly Phe Gly Arg  
 35 40 45  
 Val Ser Leu Ala Gly Ala Cys Gly Val Gly Gly Tyr Gly Ser Arg Ser  
 50 55 60  
 Leu Tyr Asn Leu Gly Gly Ser Lys Arg Ile Ser Ile Ser Thr Arg Gly  
 65 70 75 80  
 Gly Ser Phe Arg Asn Arg Phe Gly Ala Gly Ala Gly Gly Gly Tyr Gly  
 85 90 95  
 Phe Gly Gly Gly Ala Gly Ser Gly Phe Gly Phe Gly Gly Gly Ala Gly  
 100 105 110  
 Gly Gly Phe Gly Leu Gly Gly Gly Ala Gly Phe Gly Gly Gly Phe Gly  
 115 120 125  
 Gly Pro Gly Phe Pro Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr  
 130 135 140  
 Val Asn Gln Ser Leu Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Ser  
 145 150 155 160  
 Ile Gln Arg Val Arg Thr Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn  
 165 170 175  
 Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln  
 180 185 190  
 Asn Lys Val Leu Asp Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr  
 195 200 205  
 Lys Thr Val Arg Gln Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn  
 210 215 220  
 Asn Leu Arg Arg Gln Leu Asp Ser Ile Val Gly Glu Arg Gly Arg Leu  
 225 230 235 240  
 Asp Ser Glu Leu Arg Asn Met Gln Asp Leu Val Glu Asp Phe Lys Asn  
 245 250 255  
 Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Thr Ala Glu Asn Glu Phe  
 260 265 270  
 Val Met Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu  
 275 280 285

Leu Glu Ala Lys Val Asp Ala Leu Met Asp Glu Ile Asn Phe Met Lys  
 290 295 300  
 Met Phe Phe Asp Ala Glu Leu Ser Gln Met Gln Thr His Val Ser Asp  
 305 310 315 320  
 Thr Ser Val Val Leu Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp  
 325 330 335  
 Ser Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Glu Ile Ala Asn Arg  
 340 345 350  
 Ser Arg Thr Glu Ala Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu  
 355 360 365  
 Gln Gln Thr Ala Gly Arg His Gly Asp Asp Leu Arg Asn Thr Lys His  
 370 375 380  
 Glu Ile Thr Glu Met Asn Arg Met Ile Gln Arg Leu Arg Ala Glu Ile  
 385 390 395 400  
 Asp Asn Val Lys Lys Gln Cys Ala Asn Leu Gln Asn Ala Ile Ala Asp  
 405 410 415  
 Ala Glu Gln Arg Gly Glu Leu Ala Leu Lys Asp Ala Arg Asn Lys Leu  
 420 425 430  
 Ala Glu Leu Glu Glu Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Arg  
 435 440 445  
 Leu Leu Arg Glu Tyr Gln Glu Leu Met Asn Thr Lys Leu Ala Leu Asp  
 450 455 460  
 Val Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg  
 465 470 475 480  
 Leu Ser Gly Glu Gly Val Gly Pro Val Asn Ile Ser Val Val Thr Ser  
 485 490 495  
 Ser Val Ser Ser Gly Tyr Gly Ser Gly Ser Gly Tyr Gly Gly Gly Leu  
 500 505 510  
 Gly Gly Gly Leu Gly Gly Gly Leu Gly Gly Gly Leu Ala Gly Gly Ser  
 515 520 525  
 Ser Gly Ser Tyr Tyr Ser Ser Ser Ser Gly Gly Val Gly Leu Gly Gly  
 530 535 540  
 Gly Leu Ser Val Gly Gly Ser Gly Phe Ser Ala Ser Ser Gly Arg Gly  
 545 550 555 560  
 Leu Gly Val Gly Phe Gly Ser Gly Gly Gly Ser Ser Ser Ser Val Lys  
 565 570 575  
 Phe Val Ser Thr Thr Ser Ser Ser Arg Lys Ser Phe Lys Ser  
 580 585 590  
 <210> 458  
 <211> 523  
 <212> PRT  
 <213> Homo sapiens

<400> 458  
 Met Ser Arg Gln Phe Thr Cys Lys Ser Gly Ala Ala Ala Lys Gly Gly  
 1 5 10 15  
 Phe Ser Gly Cys Ser Ala Val Leu Ser Gly Gly Ser Ser Ser Ser Phe  
 20 25 30  
 Arg Ala Gly Ser Lys Gly Leu Ser Gly Gly Phe Gly Ser Arg Ser Leu  
 35 40 45  
 Tyr Ser Leu Gly Gly Val Arg Ser Leu Asn Val Ala Ser Gly Ser Gly  
 50 55 60  
 Lys Ser Gly Gly Tyr Gly Phe Gly Arg Gly Arg Ala Ser Gly Phe Ala  
 65 70 75 80  
 Gly Ser Met Phe Gly Ser Val Ala Leu Gly Pro Val Cys Pro Thr Val  
 85 90 95  
 Cys Pro Pro Gly Gly Ile His Gln Val Thr Val Asn Glu Ser Leu Leu  
 100 105 110  
 Ala Pro Leu Asn Val Glu Leu Asp Pro Glu Ile Gln Lys Val Arg Ala  
 115 120 125

Gln Glu Arg Glu Gln Ile Lys Ala Leu Asn Asn Lys Phe Ala Ser Phe  
 130 135 140  
 Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Gln Val Leu Glu Thr  
 145 150 155 160  
 Lys Trp Glu Leu Leu Gln Gln Leu Asp Leu Asn Asn Cys Lys Asn Asn  
 165 170 175  
 Leu Glu Pro Ile Leu Glu Gly Tyr Ile Ser Asn Leu Arg Lys Gln Leu  
 180 185 190  
 Glu Thr Leu Ser Gly Asp Arg Val Arg Leu Asp Ser Glu Leu Arg Asn  
 195 200 205  
 Val Arg Asp Val Val Glu Asp Tyr Lys Lys Arg Tyr Glu Glu Glu Ile  
 210 215 220  
 Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Leu Leu Lys Lys Asp  
 225 230 235 240  
 Val Asp Ala Ala Tyr Ala Asn Lys Val Glu Leu Gln Ala Lys Val Glu  
 245 250 255  
 Ser Met Asp Gln Glu Ile Lys Phe Phe Arg Cys Leu Phe Glu Ala Glu  
 260 265 270  
 Ile Thr Gln Ile Gln Ser His Ile Ser Asp Met Ser Val Ile Leu Ser  
 275 280 285  
 Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Asp Glu Val  
 290 295 300  
 Arg Thr Gln Tyr Glu Glu Ile Ala Leu Lys Ser Lys Ala Glu Ala Glu  
 305 310 315 320  
 Ala Leu Tyr Gln Thr Lys Phe Gln Glu Leu Gln Leu Ala Ala Gly Arg  
 325 330 335  
 His Gly Asp Asp Leu Lys Asn Thr Lys Asn Glu Ile Ser Glu Leu Thr  
 340 345 350  
 Arg Leu Ile Gln Arg Ile Arg Ser Glu Ile Glu Asn Val Lys Lys Gln  
 355 360 365  
 Ala Ser Asn Leu Glu Thr Ala Ile Ala Asp Ala Glu Gln Arg Gly Asp  
 370 375 380  
 Asn Ala Leu Lys Asp Ala Arg Ala Lys Leu Asp Glu Leu Glu Gly Ala  
 385 390 395 400  
 Leu His Gln Ala Lys Glu Glu Leu Ala Arg Met Leu Arg Glu Tyr Gln  
 405 410 415  
 Glu Leu Met Ser Leu Lys Leu Ala Leu Asp Met Glu Ile Ala Thr Tyr  
 420 425 430  
 Arg Lys Leu Leu Glu Ser Glu Glu Cys Arg Met Ser Gly Glu Phe Pro  
 435 440 445  
 Ser Pro Val Ser Ile Ser Ile Ile Ser Ser Thr Ser Gly Gly Ser Val  
 450 455 460  
 Tyr Gly Phe Arg Pro Ser Met Val Ser Gly Gly Tyr Val Ala Asn Ser  
 465 470 475 480  
 Ser Asn Cys Ile Ser Gly Val Cys Ser Val Arg Gly Gly Glu Gly Arg  
 485 490 495  
 Ser Arg Gly Ser Ala Asn Asp Tyr Lys Asp Thr Leu Gly Lys Gly Ser  
 500 505 510  
 Ser Leu Ser Ala Pro Ser Lys Lys Thr Ser Arg  
 515 520

&lt;210&gt; 459

&lt;211&gt; 529

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 459

Met Ser Arg Gln Leu Asn Ile Lys Ser Ser Gly Asp Lys Gly Asn Phe  
 1 5 10 15  
 Ser Val His Ser Ala Val Val Pro Arg Lys Ala Val Gly Ser Leu Ala  
 20 25 30



Ser Tyr Cys Ala Ala Gly Arg Gly Ala Gly Ala Gly Phe Gly Ser Arg  
           35                                  40                                  45  
 Ser Leu Tyr Ser Leu Gly Gly Asn Arg Arg Ile Ser Phe Asn Val Ala  
       50                                  55                                  60  
 Gly Gly Gly Val Arg Ala Gly Gly Tyr Gly Phe Arg Pro Gly Ser Gly  
   65                                  70                                  75                                  80  
 Tyr Gly Gly Gly Arg Ala Ser Gly Phe Ala Gly Ser Met Phe Gly Ser  
                                   85                                  90                                  95  
 Val Ala Leu Gly Pro Ala Cys Leu Ser Val Cys Pro Pro Gly Gly Ile  
                                   100                                  105                                  110  
 His Gln Val Thr Val Asn Lys Ser Leu Leu Ala Pro Leu Asn Val Glu  
                                   115                                  120                                  125  
 Leu Asp Pro Glu Ile Gln Lys Val Arg Ala Gln Glu Arg Glu Gln Ile  
       130                                  135                                  140  
 Lys Val Leu Asn Asp Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe  
   145                                  150                                  155                                  160  
 Leu Glu Gln Gln Asn Gln Val Leu Glu Thr Lys Trp Glu Leu Leu Gln  
                                   165                                  170                                  175  
 Gln Leu Asp Leu Asn Asn Cys Lys Lys Asn Leu Glu Pro Ile Leu Glu  
                                   180                                  185                                  190  
 Gly Tyr Ile Ser Asn Leu Arg Lys Gln Leu Glu Thr Leu Ser Gly Asp  
                                   195                                  200                                  205  
 Arg Val Arg Leu Asp Ser Glu Leu Arg Ser Met Arg Asp Leu Val Glu  
       210                                  215                                  220  
 Asp Tyr Lys Lys Arg Tyr Glu Val Glu Ile Asn Arg Arg Thr Thr Ala  
   225                                  230                                  235                                  240  
 Glu Asn Glu Phe Val Val Leu Lys Lys Asp Ala Asp Ala Ala Tyr Ala  
                                   245                                  250                                  255  
 Val Lys Val Glu Leu Gln Ala Lys Val Asp Ser Leu Asp Lys Asp Ile  
                                   260                                  265                                  270  
 Lys Phe Leu Lys Cys Leu Tyr Asp Ala Glu Ile Ala Gln Ile Gln Thr  
                                   275                                  280                                  285  
 His Ala Ser Glu Thr Ser Val Ile Leu Ser Met Asp Asn Asn Arg Asp  
       290                                  295                                  300  
 Leu Asp Leu Asp Ser Ile Ile Ala Glu Val Arg Met His Tyr Glu Glu  
   305                                  310                                  315                                  320  
 Ile Ala Leu Lys Ser Lys Ala Glu Ala Glu Ala Leu Tyr Gln Thr Lys  
                                   325                                  330                                  335  
 Ile Gln Glu Leu Gln Leu Ala Ala Ser Arg His Gly Asp Asp Leu Lys  
                                   340                                  345                                  350  
 His Thr Arg Ser Glu Met Val Glu Leu Asn Arg Leu Ile Gln Arg Ile  
                                   355                                  360                                  365  
 Arg Cys Glu Ile Gly Asn Val Lys Lys Gln Arg Ala Ser Leu Glu Thr  
       370                                  375                                  380  
 Ala Ile Ala Asp Ala Glu Gln Arg Gly Asp Asn Ala Leu Lys Asp Ala  
   385                                  390                                  395                                  400  
 Gln Ala Lys Leu Asp Glu Leu Glu Gly Ala Leu His Gln Ala Lys Glu  
                                   405                                  410                                  415  
 Glu Leu Ala Arg Met Leu Arg Glu Tyr Gln Glu Leu Met Ser Leu Lys  
                                   420                                  425                                  430  
 Leu Ala Leu Asp Met Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly  
       435                                  440                                  445  
 Glu Glu Cys Arg Met Ser Gly Glu Asn Pro Ser Ser Val Ser Ile Ser  
   450                                  455                                  460  
 Val Ile Ser Ser Ser Ser Tyr Ser Tyr His His Pro Ser Ser Ala Gly  
   465                                  470                                  475                                  480  
 Val Asp Leu Gly Ala Ser Ala Val Ala Gly Ser Ser Gly Ser Thr Gln  
                                   485                                  490                                  495  
 Ser Gly Gln Thr Lys Thr Thr Glu Ala Arg Gly Gly Asp Leu Lys Asp  
                                   500                                  505                                  510  
 Thr Gln Gly Lys Ser Thr Pro Ala Ser Ile Pro Ala Arg Lys Ala Thr  
                                   515                                  520                                  525  
 Arg

&lt;210&gt; 460

&lt;211&gt; 511

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 460

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Met Ser Arg Gln Leu Thr His Phe Pro Arg Gly Glu Arg Leu Gly Phe
1      5      10
Ser Gly Cys Ser Ala Val Leu Ser Gly Ile Gly Ser Ser Ser Ala
20      25      30
Ser Phe Arg Ala Arg Val Lys Gly Ser Ala Ser Phe Gly Ser Lys Ser
35      40      45
Leu Ser Cys Leu Gly Gly Ser Arg Ser Leu Ala Leu Ser Ala Ala Ala
50      55      60
Arg Arg Gly Gly Gly Arg Leu Gly Gly Phe Val Gly Thr Ala Phe Gly
65      70      75      80
Ser Ala Gly Leu Gly Pro Lys Cys Pro Ser Val Cys Pro Pro Gly Gly
85      90      95
Ile Pro Gln Val Thr Val Asn Lys Ser Leu Leu Ala Pro Leu Asn Val
100     105     110
Glu Met Asp Pro Glu Ile Gln Arg Val Arg Ala Gln Glu Arg Glu Gln
115     120     125
Ile Lys Ala Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg
130     135     140
Phe Leu Glu Gln Gln Asn Gln Val Leu Glu Thr Lys Trp Asn Leu Leu
145     150     155     160
Gln Gln Leu Asp Leu Asn Asn Cys Arg Lys Asn Leu Glu Pro Ile Tyr
165     170     175
Glu Gly Tyr Ile Ser Asn Leu Gln Lys Gln Leu Glu Met Leu Ser Gly
180     185     190
Asp Gly Val Arg Leu Asp Ser Glu Leu Arg Asn Met Gln Asp Leu Val
195     200     205
Glu Asp Tyr Lys Lys Arg Tyr Glu Val Glu Ile Asn Arg Arg Thr Ala
210     215     220
Ala Glu Asn Glu Phe Val Val Leu Lys Lys Asp Val Asp Ala Ala Tyr
225     230     235     240
Met Asn Lys Val Glu Leu Gln Ala Lys Val Asp Ser Leu Thr Asp Glu
245     250     255
Ile Lys Phe Phe Lys Cys Leu Tyr Glu Gly Glu Ile Thr Gln Ile Gln
260     265     270
Ser His Ile Ser Asp Thr Ser Ile Val Leu Ser Met Asp Asn Asn Arg
275     280     285
Asp Leu Asp Leu Asp Ser Ile Ala Glu Val Arg Ala Gln Tyr Glu
290     295     300
Glu Ile Ala Leu Lys Ser Lys Ala Glu Ala Glu Thr Leu Tyr Gln Thr
305     310     315     320
Lys Ile Gln Glu Leu Gln Val Thr Ala Gly Gln His Gly Asp Asp Leu
325     330     335
Lys Leu Thr Lys Ala Glu Ile Ser Glu Leu Asn Arg Leu Ile Gln Arg
340     345     350
Ile Arg Ser Glu Ile Gly Asn Val Lys Lys Gln Cys Ala Asp Leu Glu
355     360     365
Thr Ala Ile Ala Asp Ala Glu Gln Arg Gly Asp Cys Ala Leu Lys Asp
370     375     380
Ala Arg Ala Lys Leu Asp Glu Leu Glu Gly Ala Leu His Gln Ala Lys
385     390     395     400
Glu Glu Leu Ala Arg Met Leu Arg Glu Tyr Gln Glu Leu Val Ser Leu
405     410     415
Lys Leu Ala Leu Asp Met Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu
420     425     430
Ser Glu Glu Cys Arg Met Ser Gly Glu Tyr Pro Asn Ser Val Ser Ile
435     440     445

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Ser Val Ile Ser Ser Thr Asn Ala Gly Ala Gly Gly Ala Gly Phe Ser  
 450 455 460  
 Met Gly Phe Gly Ala Ser Ser Ser Tyr Ser Tyr Lys Thr Ala Ala Ala  
 465 470 475 480  
 Asp Val Lys Thr Lys Gly Ser Cys Gly Ser Glu Leu Lys Asp Pro Leu  
 485 490 495  
 Ala Lys Thr Ser Gly Ser Ser Cys Ala Thr Lys Lys Ala Ser Arg  
 500 505 510  
 <210> 461  
 <211> 540  
 <212> PRT  
 <213> Homo sapiens

<400> 461  
 Met Ser Arg Gln Phe Thr Tyr Lys Ser Gly Ala Ala Ala Lys Gly Gly  
 1 5 10 15  
 Phe Ser Gly Cys Ser Ala Val Leu Ser Gly Gly Ser Ser Ser Ser Tyr  
 20 25 30  
 Arg Ala Gly Gly Lys Gly Leu Ser Gly Gly Phe Ser Ser Arg Ser Leu  
 35 40 45  
 Tyr Ser Leu Gly Gly Ala Arg Ser Ile Ser Phe Asn Val Ala Ser Gly  
 50 55 60  
 Ser Gly Trp Ala Gly Gly Tyr Gly Phe Gly Arg Gly Arg Ala Ser Gly  
 65 70 75 80  
 Phe Ala Gly Ser Met Phe Gly Ser Val Ala Leu Gly Ser Val Cys Pro  
 85 90 95  
 Ser Leu Cys Pro Pro Gly Gly Ile His Gln Val Thr Ile Asn Lys Ser  
 100 105 110  
 Leu Leu Ala Pro Leu Asn Val Glu Leu Asp Pro Glu Ile Gln Lys Val  
 115 120 125  
 Arg Ala Gln Glu Arg Glu Gln Ile Lys Val Leu Asn Asn Lys Phe Ala  
 130 135 140  
 Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Gln Val Leu  
 145 150 155 160  
 Glu Thr Lys Trp Glu Leu Leu Gln Gln Leu Asp Leu Asn Asn Cys Lys  
 165 170 175  
 Asn Asn Leu Glu Pro Ile Leu Glu Gly Tyr Ile Ser Asn Leu Arg Lys  
 180 185 190  
 Gln Leu Glu Thr Leu Ser Gly Asp Arg Val Arg Leu Asp Ser Glu Leu  
 195 200 205  
 Arg Ser Val Arg Glu Val Val Glu Asp Tyr Lys Lys Arg Tyr Glu Glu  
 210 215 220  
 Glu Ile Asn Lys Arg Thr Thr Ala Glu Asn Glu Phe Val Val Leu Lys  
 225 230 235 240  
 Lys Asp Val Asp Ala Ala Tyr Thr Ser Lys Val Glu Leu Gln Ala Lys  
 245 250 255  
 Val Asp Ala Leu Asp Gly Glu Ile Lys Phe Phe Lys Cys Leu Tyr Glu  
 260 265 270  
 Gly Glu Thr Ala Gln Ile Gln Ser His Ile Ser Asp Thr Ser Ile Ile  
 275 280 285  
 Leu Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala  
 290 295 300  
 Glu Val Arg Ala Gln Tyr Glu Glu Ile Ala Arg Lys Ser Lys Ala Glu  
 305 310 315 320  
 Ala Glu Ala Leu Tyr Gln Thr Lys Phe Gln Glu Leu Gln Leu Ala Ala  
 325 330 335  
 Gly Arg His Gly Asp Asp Leu Lys His Thr Lys Asn Glu Ile Ser Glu  
 340 345 350  
 Leu Thr Arg Leu Ile Gln Arg Leu Arg Ser Glu Ile Glu Ser Val Lys  
 355 360 365

Lys Gln Cys Ala Asn Leu Glu Thr Ala Ile Ala Asp Ala Glu Gln Arg  
 370 375 380  
 Gly Asp Cys Ala Leu Lys Asp Ala Arg Ala Lys Leu Asp Glu Leu Glu  
 385 390 395 400  
 Gly Ala Leu Gln Gln Ala Lys Glu Glu Leu Ala Arg Met Leu Arg Glu  
 405 410 415  
 Tyr Gln Glu Leu Leu Ser Val Lys Leu Ser Leu Asp Ile Glu Ile Ala  
 420 425 430  
 Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Met Ser Gly Glu  
 435 440 445  
 Tyr Thr Asn Ser Val Ser Ile Ser Val Ile Asn Ser Ser Met Ala Gly  
 450 455 460  
 Met Ala Gly Thr Gly Ala Gly Phe Gly Phe Ser Asn Ala Gly Thr Tyr  
 465 470 475 480  
 Gly Tyr Trp Pro Ser Ser Val Ser Gly Gly Tyr Ser Met Leu Pro Gly  
 485 490 495  
 Gly Cys Val Thr Gly Ser Gly Asn Cys Ser Pro Arg Gly Glu Ala Arg  
 500 505 510  
 Thr Arg Leu Gly Ser Ala Ser Glu Phe Arg Asp Ser Gln Gly Lys Thr  
 515 520 525  
 Leu Ala Leu Ser Ser Pro Thr Lys Lys Thr Met Arg  
 530 535 540  
 <210> 462  
 <211> 645  
 <212> PRT  
 <213> Homo sapiens

<400> 462  
 Met Ser Cys Gln Ile Ser Cys Lys Ser Arg Gly Arg Gly Gly Gly Gly  
 1 5 10 15  
 Gly Gly Phe Arg Gly Phe Ser Ser Gly Ser Ala Val Val Ser Gly Gly  
 20 25 30  
 Ser Arg Arg Ser Thr Ser Ser Phe Ser Cys Leu Ser Arg His Gly Gly  
 35 40 45  
 Gly Gly Gly Gly Phe Gly Gly Gly Phe Gly Ser Arg Ser Leu Val  
 50 55 60  
 Gly Leu Gly Gly Thr Lys Ser Ile Ser Ile Ser Val Ala Gly Gly Gly  
 65 70 75 80  
 Gly Gly Phe Gly Ala Ala Gly Gly Phe Gly Gly Arg Gly Gly Gly Phe  
 85 90 95  
 Gly Gly Gly Ser Gly Phe Gly Gly Gly Ser Gly Phe Gly Gly Gly Ser  
 100 105 110  
 Gly Phe Ser Gly Gly Gly Phe Gly Gly Gly Gly Phe Gly Gly Gly Arg  
 115 120 125  
 Phe Gly Gly Phe Gly Gly Pro Gly Gly Val Gly Gly Leu Gly Gly Pro  
 130 135 140  
 Gly Gly Phe Gly Pro Gly Tyr Pro Gly Gly Ile His Glu Val Ser  
 145 150 155 160  
 Val Asn Gln Ser Leu Leu Gln Pro Leu Asn Val Lys Val Asp Pro Glu  
 165 170 175  
 Ile Gln Asn Val Lys Ala Gln Glu Arg Glu Gln Ile Lys Thr Leu Asn  
 180 185 190  
 Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln  
 195 200 205  
 Asn Gln Val Leu Gln Thr Lys Trp Glu Leu Leu Gln Gln Met Asn Val  
 210 215 220  
 Gly Thr Arg Pro Ile Asn Leu Glu Pro Ile Phe Gln Gly Tyr Ile Asp  
 225 230 235 240  
 Ser Leu Lys Arg Tyr Leu Asp Gly Leu Thr Ala Glu Arg Thr Ser Gln  
 245 250 255

Asn Ser Glu Leu Asn Asn Met Gln Asp Leu Val Glu Asp Tyr Lys Lys  
 260 265 270  
 Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Ala Ala Glu Asn Asp Phe  
 275 280 285  
 Val Thr Leu Lys Lys Asp Val Asp Asn Ala Tyr Met Ile Lys Val Glu  
 290 295 300  
 Leu Gln Ser Lys Val Asp Leu Leu Asn Gln Glu Ile Glu Phe Leu Lys  
 305 310 315 320  
 Val Leu Tyr Asp Ala Glu Ile Ser Gln Ile His Gln Ser Val Thr Asp  
 325 330 335  
 Thr Asn Val Ile Leu Ser Met Asp Asn Ser Arg Asn Leu Asp Leu Asp  
 340 345 350  
 Ser Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg  
 355 360 365  
 Ser Lys Glu Glu Ala Glu Ala Leu Tyr His Ser Lys Tyr Glu Glu Leu  
 370 375 380  
 Gln Val Thr Val Gly Arg His Gly Asp Ser Leu Lys Glu Ile Lys Ile  
 385 390 395 400  
 Glu Ile Ser Glu Leu Asn Arg Val Ile Gln Arg Leu Gln Gly Glu Ile  
 405 410 415  
 Ala His Val Lys Lys Gln Cys Lys Asn Val Gln Asp Ala Ile Ala Asp  
 420 425 430  
 Ala Glu Gln Arg Gly Glu His Ala Leu Lys Asp Ala Arg Asn Lys Leu  
 435 440 445  
 Asn Asp Leu Glu Glu Ala Leu Gln Gln Ala Lys Glu Asp Leu Ala Arg  
 450 455 460  
 Leu Leu Arg Asp Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp  
 465 470 475 480  
 Val Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg  
 485 490 495  
 Met Ser Gly Asp Leu Ser Ser Asn Val Thr Val Ser Val Thr Ser Ser  
 500 505 510  
 Thr Ile Ser Ser Asn Val Ala Ser Lys Ala Ala Phe Gly Gly Ser Gly  
 515 520 525  
 Gly Arg Gly Ser Ser Ser Gly Gly Tyr Ser Ser Gly Ser Ser Ser  
 530 535 540  
 Tyr Gly Ser Gly Gly Arg Gln Ser Gly Ser Arg Gly Gly Ser Gly Gly  
 545 550 555 560  
 Gly Gly Ser Ile Ser Gly Gly Gly Tyr Gly Ser Gly Gly Gly Ser Gly  
 565 570 575  
 Gly Arg Tyr Gly Ser Gly Gly Gly Ser Lys Gly Gly Ser Ile Ser Gly  
 580 585 590  
 Gly Gly Tyr Gly Ser Gly Gly Gly Lys His Ser Ser Gly Gly Gly Ser  
 595 600 605  
 Arg Gly Gly Ser Ser Ser Gly Gly Gly Tyr Gly Ser Gly Gly Gly Gly  
 610 615 620  
 Ser Ser Ser Val Lys Gly Ser Ser Gly Glu Ala Phe Gly Ser Ser Val  
 625 630 635 640  
 Thr Phe Ser Phe Arg  
 645

&lt;210&gt; 463

&lt;211&gt; 644

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 463

Met Ser Arg Gln Phe Ser Ser Arg Ser Gly Tyr Arg Ser Gly Gly Gly  
 1 5 10 15  
 Phe Ser Ser Gly Ser Ala Gly Ile Ile Asn Tyr Gln Arg Arg Thr Thr  
 20 25 30

Ser Ser Ser Thr Arg Arg Ser Gly Gly Gly Gly Gly Arg Phe Ser Ser  
 35 40 45  
 Cys Gly Gly Gly Gly Gly Ser Phe Gly Ala Gly Gly Gly Phe Gly Ser  
 50 55 60  
 Arg Ser Leu Val Asn Leu Gly Gly Ser Lys Ser Ile Ser Ile Ser Val  
 65 70 75 80  
 Ala Arg Gly Gly Gly Arg Gly Ser Gly Phe Gly Gly Gly Tyr Gly Gly  
 85 90 95  
 Gly Gly Phe Gly Gly Gly Gly Phe Gly Gly Gly Gly Phe Gly Gly Gly  
 100 105 110  
 Gly Ile Gly Gly Gly Gly Phe Gly Gly Phe Gly Ser Gly Gly Gly Gly  
 115 120 125  
 Phe Gly Gly Gly Gly Phe Gly Gly Gly Gly Tyr Gly Gly Gly Tyr Gly  
 130 135 140  
 Pro Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Ile Asn Gln Ser  
 145 150 155 160  
 Leu Leu Gln Pro Leu Asn Val Glu Ile Asp Pro Glu Ile Gln Lys Val  
 165 170 175  
 Lys Ser Arg Glu Arg Glu Gln Ile Lys Ser Leu Asn Asn Gln Phe Ala  
 180 185 190  
 Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Gln Val Leu  
 195 200 205  
 Gln Thr Lys Trp Glu Leu Leu Gln Gln Val Asp Thr Ser Thr Arg Thr  
 210 215 220  
 His Asn Leu Glu Pro Tyr Phe Glu Ser Phe Ile Asn Asn Leu Arg Arg  
 225 230 235 240  
 Arg Val Asp Gln Leu Lys Ser Asp Gln Ser Arg Leu Asp Ser Glu Leu  
 245 250 255  
 Lys Asn Met Gln Asp Met Val Glu Asp Tyr Arg Asn Lys Tyr Glu Asp  
 260 265 270  
 Glu Ile Asn Lys Arg Thr Asn Ala Glu Asn Glu Phe Val Thr Ile Lys  
 275 280 285  
 Lys Asp Val Asp Gly Ala Tyr Met Thr Lys Val Asp Leu Gln Ala Lys  
 290 295 300  
 Leu Asp Asn Leu Gln Gln Glu Ile Asp Phe Leu Thr Ala Leu Tyr Gln  
 305 310 315 320  
 Ala Glu Leu Ser Gln Met Gln Thr Gln Ile Ser Glu Thr Asn Val Ile  
 325 330 335  
 Leu Ser Met Asp Asn Asn Arg Ser Leu Asp Leu Asp Ser Ile Ile Ala  
 340 345 350  
 Glu Val Lys Ala Gln Tyr Glu Asp Ile Ala Gln Lys Ser Lys Ala Glu  
 355 360 365  
 Ala Glu Ser Leu Tyr Gln Ser Lys Tyr Glu Glu Leu Gln Ile Thr Ala  
 370 375 380  
 Gly Arg His Gly Asp Ser Val Arg Asn Ser Lys Ile Glu Ile Ser Glu  
 385 390 395 400  
 Leu Asn Arg Val Ile Gln Arg Leu Arg Ser Glu Ile Asp Asn Val Lys  
 405 410 415  
 Lys Gln Ile Ser Asn Leu Gln Gln Ser Ile Ser Asp Ala Glu Gln Arg  
 420 425 430  
 Gly Glu Asn Ala Leu Lys Asp Ala Lys Asn Lys Leu Asn Asp Leu Glu  
 435 440 445  
 Asp Ala Leu Gln Gln Ala Lys Glu Asp Leu Ala Arg Leu Leu Arg Asp  
 450 455 460  
 Tyr Gln Glu Leu Met Asn Thr Lys Leu Ala Leu Asp Leu Glu Ile Ala  
 465 470 475 480  
 Thr Tyr Arg Thr Leu Leu Glu Gly Glu Glu Ser Arg Met Ser Gly Glu  
 485 490 495  
 Cys Ala Pro Asn Val Ser Val Ser Val Ser Thr Ser His Thr Thr Ile  
 500 505 510  
 Ser Gly Gly Gly Ser Arg Gly Gly Gly Gly Gly Tyr Gly Ser Gly  
 515 520 525  
 Gly Ser Ser Tyr Gly Ser Gly Gly Gly Ser Tyr Gly Ser Gly Gly Gly  
 530 535 540  
 Gly Gly Gly Gly Arg Gly Ser Tyr Gly Ser Gly Gly Ser Ser Tyr Gly  
 545 550 555 560

[illegible]

<210> 464

**<211> 629**

<212> PRT

<213> Homo sapiens

**<400> 464**

Met 1	Ser	Arg	Gln	Ala 5	Ser	Lys	Thr	Ser	Gly 10	Gly	Gly	Ser	Gln	Gly 15	Phe
Ser	Gly	Arg	Ser	Ala 20	Val	Val	Ser	Gly 25	Ser	Ser	Arg	Met	Ser	Cys 30	Val
Ala	His	Ser	Gly	Gly	Ala	Gly	Gly	Gly	Ala	Tyr	Gly	Phe	Arg	Ser	Gly
Ala	Gly	Gly	Phe	Gly	Ser	Arg	Ser	Leu	Tyr	Asn	Leu	Gly	Gly	Asn	Lys
Ser	Ile	Ser	Ile	Ser	Val	Ala	Ala	Gly	Gly	Ser	Arg	Ala	Gly	Gly	Phe
65	Gly	Gly	Arg	Ser	70	Cys	Ala	Phe	Ala	Gly	Gly	Tyr	Gly	Gly	80
Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Gly	Phe	Gly	Gly	Gly	Phe	Gly	Gly	Gly
Arg	Gly	Met	Gly	Gly	Gly	Phe	Gly	Gly	Ala	Gly	Gly	Phe	Gly	Gly	Ala
Gly	Gly	Phe	Gly	Gly	Ala	Gly	Gly	Phe	Gly	Gly	Pro	Gly	Gly	Phe	Gly
145	Ser	Gly	Gly	Phe	Gly	Gly	Pro	Gly	Ser	Leu	Gly	Ser	Pro	Gly	Gly
Phe	Ala	Pro	Gly	Gly	Phe	Pro	Gly	Gly	Ile	Gln	Glu	Val	Thr	Thr	Asn
Gln	Ser	Leu	Leu	Gln	Pro	Leu	Lys	Val	Glu	Thr	Asp	Pro	Gln	Ile	Gly
Gln	Val	Lys	Ala	Gln	Glu	Arg	Glu	Gln	Ile	Lys	Thr	Leu	Asn	Asn	Lys
Phe	Ala	Ser	Phe	Ile	Asp	Lys	Val	Arg	Phe	Leu	Glu	Gln	Gln	Asn	Lys
Val	Leu	Glu	Thr	Lys	Trp	Asn	Leu	Leu	Gln	Gln	Gln	Gly	Thr	Ser	Ser
225	Ile	Ser	Gly	Thr	Asn	Asn	Leu	Glu	Pro	Leu	Phe	Glu	Asn	His	Ile
Tyr	Leu	Arg	Ser	Tyr	Leu	Asp	Asn	Ile	Leu	Gly	Glu	Arg	Gly	Arg	Leu
Asp	Ser	Glu	Leu	Lys	Asn	Met	Glu	Asp	Leu	Val	Glu	Asp	Phe	Lys	Lys
Lys	Tyr	Glu	Asp	Glu	Ile	Asn	Lys	Arg	Thr	Ala	Ala	Glu	Asn	Glu	Phe
Val	Thr	Leu	Lys	Lys	Asp	Val	Asp	Ser	Ala	Tyr	Met	Asn	Lys	Val	Glu
305	Leu	Gln	Ala	Lys	Val	Asp	Ala	Leu	Ile	Asp	Glu	Ile	Asp	Phe	Leu
				325					330					335	Arg

Thr Leu Tyr Asp Ala Glu Leu Ser Gln Met Gln Ser His Ile Ser Asp  
 340 345 350  
 Thr Ser Val Val Leu Ser Met Asp Asn Asn Arg Ser Leu Asp Leu Asp  
 355 360 365  
 Ser Ile Ile Ala Glu Val Gly Ala Gln Tyr Glu Asp Ile Ala Gln Arg  
 370 375 380  
 Ser Lys Ala Glu Ala Glu Ala Leu Tyr Gln Thr Lys Leu Gly Glu Leu  
 385 390 395 400  
 Gln Thr Thr Ala Gly Arg His Gly Asp Asp Leu Arg Asn Thr Lys Ser  
 405 410 415  
 Glu Ile Ile Glu Leu Asn Arg Met Ile Gln Arg Leu Arg Ala Glu Ile  
 420 425 430  
 Glu Gly Val Lys Lys Gln Asn Ala Asn Leu Gln Thr Ala Ile Ala Gln  
 435 440 445  
 Ala Glu Gln His Gly Glu Met Ala Leu Lys Asp Ala Asn Ala Lys Leu  
 450 455 460  
 Gln Glu Leu Gln Ala Ala Leu Gln Gln Ala Lys Asp Asp Leu Ala Arg  
 465 470 475 480  
 Leu Leu Arg Asp Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp  
 485 490 495  
 Val Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Tyr Ser  
 500 505 510  
 Arg Met Ser Gly Glu Cys Pro Ser Ala Val Ser Ile Ser Val Val Ser  
 515 520 525  
 Ser Ser Thr Thr Ser Ala Ser Ala Gly Gly Tyr Gly Gly Gly Tyr Gly  
 530 535 540  
 Gly Gly Met Gly Gly Gly Leu Gly Gly Gly Phe Ser Ala Gly Gly Gly  
 545 550 555 560  
 Ser Gly Ile Gly Phe Gly Arg Gly Gly Gly Gly Ile Gly Gly Gly  
 565 570 575  
 Phe Gly Gly Gly Thr Ser Gly Phe Ser Gly Gly Ser Gly Phe Gly Ser  
 580 585 590  
 Ile Ser Gly Ala Arg Tyr Gly Val Ser Gly Gly Gly Phe Ser Ser Ala  
 595 600 605  
 Ser Asn Arg Gly Gly Ser Ile Lys Phe Ser Gln Ser Ser Gln Ser Ser  
 610 615 620  
 Gln Arg Tyr Ser Arg  
 625  
 <210> 465  
 <211> 534  
 <212> PRT  
 <213> Homo sapiens

<400> 465  
 Met Ile Ala Arg Gln Gln Cys Val Arg Gly Gly Pro Arg Gly Phe Ser  
 1 5 10 15  
 Cys Gly Ser Ala Ile Val Gly Gly Gly Lys Arg Gly Ala Phe Ser Ser  
 20 25 30  
 Val Ser Met Ser Gly Gly Ala Gly Arg Cys Ser Ser Gly Gly Phe Gly  
 35 40 45  
 Ser Arg Ser Leu Tyr Asn Leu Arg Gly Asn Lys Ser Ile Ser Met Ser  
 50 55 60  
 Val Ala Gly Ser Arg Gln Gly Ala Cys Phe Gly Gly Ala Gly Gly Phe  
 65 70 75 80  
 Gly Thr Gly Gly Phe Gly Ala Gly Gly Phe Gly Ala Gly Phe Gly Thr  
 85 90 95  
 Gly Gly Phe Gly Gly Gly Phe Gly Gly Ser Phe Ser Gly Lys Gly Gly  
 100 105 110  
 Pro Gly Phe Pro Val Cys Pro Ala Gly Gly Ile Gln Glu Val Thr Ile  
 115 120 125



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Asn Gln Ser Leu Leu Thr Pro Leu His Val Glu Ile Asp Pro Glu Ile
 130          135          140
Gln Lys Val Arg Thr Glu Glu Arg Glu Gln Ile Lys Leu Leu Asn Asn
 145          150          155          160
Lys Phe Ala Ser Phe Ile Asp Lys Val Gln Phe Leu Glu Gln Gln Asn
          165          170          175
Lys Val Leu Glu Thr Lys Trp Asn Leu Leu Gln Gln Gln Thr Thr Thr
          180          185          190
Thr Ser Ser Lys Asn Leu Glu Pro Leu Phe Glu Thr Tyr Leu Ser Val
          195          200          205
Leu Arg Lys Gln Leu Asp Thr Leu Gly Asn Asp Lys Gly Arg Leu Gln
          210          215          220
Ser Glu Leu Lys Thr Met Gln Asp Ser Val Glu Asp Phe Lys Thr Lys
 225          230          235          240
Tyr Glu Glu Glu Ile Asn Lys Arg Thr Ala Ala Glu Asn Asp Phe Val
          245          250          255
Val Leu Lys Lys Asp Val Asp Ala Ala Tyr Leu Asn Lys Val Glu Leu
          260          265          270
Glu Ala Lys Val Asp Ser Leu Asn Asp Glu Ile Asn Phe Leu Lys Val
          275          280          285
Leu Tyr Asp Ala Glu Leu Ser Gln Met Gln Thr His Val Ser Asp Thr
          290          295          300
Ser Val Val Leu Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser
 305          310          315          320
Ile Ile Ala Glu Val Arg Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser
          325          330          335
Lys Ala Glu Ala Glu Ala Leu Tyr Gln Thr Lys Val Gln Gln Leu Gln
          340          345          350
Ile Ser Val Asp Gln His Gly Asp Asn Leu Lys Asn Thr Lys Ser Glu
          355          360          365
Ile Ala Glu Leu Asn Arg Met Ile Gln Arg Leu Arg Ala Glu Ile Glu
          370          375          380
Asn Ile Lys Lys Gln Cys Gln Thr Leu Gln Val Ser Val Ala Asp Ala
 385          390          395          400
Glu Gln Arg Gly Glu Asn Ala Leu Lys Asp Ala His Ser Lys Arg Val
          405          410          415
Glu Leu Glu Ala Ala Leu Gln Gln Ala Lys Glu Glu Leu Ala Arg Met
          420          425          430
Leu Arg Glu Tyr Gln Glu Leu Met Ser Val Lys Leu Ala Leu Asp Ile
          435          440          445
Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Tyr Arg Met
          450          455          460
Ser Gly Glu Cys Gln Ser Ala Val Ser Ile Ser Val Val Ser Gly Ser
 465          470          475          480
Thr Ser Thr Gly Gly Ile Ser Gly Gly Leu Gly Ser Gly Ser Gly Phe
          485          490          495
Gly Leu Ser Ser Gly Phe Gly Ser Gly Ser Gly Ser Gly Phe Phe
          500          505          510
Gly Gly Ser Val Ser Gly Ser Ser Ser Ser Lys Ile Ile Ser Thr Thr
          515          520          525
Thr Leu Asn Lys Arg Arg
          530

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&lt;210&gt; 466

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 466

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Met Ser Ile Arg Val Thr Gln Lys Ser Tyr Lys Val Ser Thr Ser Gly
1          5          10          15

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Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Ser Gly Pro Gly Ser Arg  
 20 25 30  
 Ile Ser Ser Ser Ser Phe Ser Arg Val Gly Ser Ser Asn Phe Arg Gly  
 35 40 45  
 Gly Leu Gly Gly Gly Tyr Gly Gly Ala Ser Gly Met Gly Gly Ile Thr  
 50 55 60  
 Ala Val Thr Val Asn Gln Ser Leu Leu Ser Pro Leu Val Leu Glu Val  
 65 70 75 80  
 Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu Lys Glu Gln Ile Lys  
 85 90 95  
 Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu  
 100 105 110  
 Glu Gln Gln Asn Lys Met Leu Glu Thr Lys Trp Ser Leu Leu Gln Gln  
 115 120 125  
 Gln Lys Thr Ala Arg Ser Asn Met Asp Asn Met Phe Glu Ser Tyr Ile  
 130 135 140  
 Asn Asn Leu Arg Arg Gln Leu Glu Thr Leu Gly Gln Glu Lys Leu Lys  
 145 150 155 160  
 Leu Glu Ala Glu Leu Gly Asn Met Gln Gly Leu Val Glu Asp Phe Lys  
 165 170 175  
 Asn Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Glu Met Glu Asn Glu  
 180 185 190  
 Phe Val Leu Ile Lys Lys Asp Val Asp Glu Ala Tyr Met Asn Lys Val  
 195 200 205  
 Glu Leu Glu Ser Arg Leu Glu Gly Leu Thr Asp Glu Ile Asn Phe Leu  
 210 215 220  
 Arg Gln Leu Tyr Glu Glu Glu Ile Arg Glu Leu Gln Ser Gln Ile Ser  
 225 230 235 240  
 Asp Thr Ser Val Val Leu Ser Met Asp Asn Ser Arg Ser Leu Asp Met  
 245 250 255  
 Asp Ser Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Asp Ile Ala Asn  
 260 265 270  
 Arg Ser Arg Ala Glu Ala Glu Ser Met Tyr Gln Ile Lys Tyr Glu Glu  
 275 280 285  
 Leu Gln Ser Leu Ala Gly Lys His Gly Asp Asp Leu Arg Arg Thr Lys  
 290 295 300  
 Thr Glu Ile Ser Glu Met Asn Arg Asn Ile Ser Arg Leu Gln Ala Glu  
 305 310 315 320  
 Ile Glu Gly Leu Lys Gly Gln Arg Ala Ser Leu Glu Ala Ala Ile Ala  
 325 330 335  
 Asp Ala Glu Gln Arg Gly Glu Leu Ala Ile Lys Asp Ala Asn Ala Lys  
 340 345 350  
 Leu Ser Glu Leu Glu Ala Ala Leu Gln Arg Ala Lys Gln Asp Met Ala  
 355 360 365  
 Arg Gln Leu Arg Glu Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu  
 370 375 380  
 Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser  
 385 390 395 400  
 Arg Leu Glu Ser Gly Met Gln Asn Met Ser Ile His Thr Lys Thr Thr  
 405 410 415  
 Ser Gly Tyr Ala Gly Gly Leu Ser Ser Ala Tyr Gly Gly Leu Thr Ser  
 420 425 430  
 Pro Gly Leu Ser Tyr Ser Leu Gly Ser Ser Phe Gly Ser Gly Ala Gly  
 435 440 445  
 Ser Ser Ser Phe Ser Arg Thr Ser Ser Ser Arg Ala Val Val Val Lys  
 450 455 460  
 Lys Ile Glu Thr Arg Asp Gly Lys Leu Val Ser Glu Ser Ser Asp Val  
 465 470 475 480  
 Leu Pro Lys

&lt;210&gt; 467

&lt;211&gt; 430

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 467

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Met Ser Phe Thr Thr Arg Ser Thr Phe Ser Thr Asn Tyr Arg Ser Leu
1      5      10      15
Gly Ser Val Gln Ala Pro Ser Tyr Gly Ala Arg Pro Val Ser Ser Ala
20      25      30
Ala Ser Val Tyr Ala Gly Ala Gly Gly Ser Gly Ser Arg Ile Ser Val
35      40      45
Ser Arg Ser Thr Ser Phe Arg Gly Gly Met Gly Ser Gly Gly Leu Ala
50      55      60
Thr Gly Ile Ala Gly Gly Leu Ala Gly Met Gly Gly Ile Gln Asn Glu
65      70      75      80
Lys Glu Thr Met Gln Ser Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp
85      90      95
Arg Val Arg Ser Leu Glu Thr Glu Asn Arg Arg Leu Glu Ser Lys Ile
100     105     110
Arg Glu His Leu Glu Lys Lys Gly Pro Gln Val Arg Asp Trp Ser His
115     120     125
Tyr Phe Lys Ile Ile Glu Asp Leu Arg Ala Gln Ile Phe Ala Asn Thr
130     135     140
Val Asp Asn Ala Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu Ala
145     150     155     160
Ala Asp Asp Phe Arg Val Lys Tyr Glu Thr Glu Leu Ala Met Arg Gln
165     170     175
Ser Val Glu Asn Asp Ile His Gly Leu Arg Lys Val Ile Asp Asp Thr
180     185     190
Asn Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu
195     200     205
Glu Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu
210     215     220
Gln Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro
225     230     235     240
Lys Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr
245     250     255
Asp Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser
260     265     270
Gln Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu
275     280     285
Val Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln
290     295     300
Ser Leu Glu Ile Asp Leu Asp Ser Met Arg Asn Leu Lys Ala Ser Leu
305     310     315     320
Glu Asn Ser Leu Arg Glu Val Glu Ala Arg Tyr Ala Leu Gln Met Glu
325     330     335
Gln Leu Asn Gly Ile Leu Leu His Leu Glu Ser Glu Leu Ala Gln Thr
340     345     350
Arg Ala Glu Gly Gln Arg Gln Ala Gln Glu Tyr Glu Ala Leu Leu Asn
355     360     365
Ile Lys Val Lys Leu Glu Ala Glu Ile Ala Thr Tyr Arg Arg Leu Leu
370     375     380
Glu Asp Gly Glu Asp Phe Asn Leu Gly Asp Ala Leu Asp Ser Ser Asn
385     390     395     400
Ser Met Gln Thr Ile Gln Lys Thr Thr Thr Arg Arg Ile Val Asp Gly
405     410     415
Lys Val Val Ser Glu Thr Asn Asp Thr Lys Val Leu Arg His
420     425     430

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&lt;210&gt; 468

&lt;211&gt; 392

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 468

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Met Val Ala Arg Val Gly Leu Leu Leu Arg Ala Leu Gln Leu Leu Leu
1      5      10      15
Trp Gly His Leu Asp Ala Gln Pro Ala Glu Arg Gly Gly Gln Glu Leu
20      25      30
Arg Lys Glu Ala Glu Ala Phe Leu Glu Lys Tyr Gly Tyr Leu Asn Glu
35      40      45
Gln Val Pro Lys Ala Pro Thr Ser Thr Arg Phe Ser Asp Ala Ile Arg
50      55      60
Ala Phe Gln Trp Val Ser Gln Leu Pro Val Ser Gly Val Leu Asp Arg
65      70      75      80
Ala Thr Leu Arg Gln Met Thr Arg Pro Arg Cys Gly Val Thr Asp Thr
85      90      95
Asn Ser Tyr Ala Ala Trp Ala Glu Arg Ile Ser Asp Leu Phe Ala Arg
100     105     110
His Arg Thr Lys Met Arg Arg Lys Arg Phe Ala Lys Gln Gly Asn
115     120     125
Lys Trp Tyr Lys Gln His Leu Ser Tyr Arg Leu Val Asn Trp Pro Glu
130     135     140
His Leu Pro Glu Pro Ala Val Arg Gly Ala Val Arg Ala Ala Phe Gln
145     150     155     160
Leu Trp Ser Asn Val Ser Ala Leu Glu Phe Trp Glu Ala Pro Ala Thr
165     170     175
Gly Pro Ala Asp Ile Arg Leu Thr Phe Phe Gln Gly Asp His Asn Asp
180     185     190
Gly Leu Gly Asn Ala Phe Asp Gly Pro Gly Gly Ala Leu Ala His Ala
195     200     205
Phe Leu Pro Arg Arg Gly Glu Ala His Phe Asp Gln Asp Glu Arg Trp
210     215     220
Ser Leu Ser Arg Arg Arg Gly Arg Asn Leu Phe Val Val Leu Ala His
225     230     235     240
Glu Ile Gly His Thr Leu Gly Leu Thr His Ser Pro Ala Pro Arg Ala
245     250     255
Leu Met Ala Pro Tyr Tyr Lys Arg Leu Gly Arg Asp Ala Leu Leu Ser
260     265     270
Trp Asp Asp Val Leu Ala Val Gln Ser Leu Tyr Gly Lys Pro Leu Gly
275     280     285
Gly Ser Val Ala Val Gln Leu Pro Gly Lys Leu Phe Thr Asp Phe Glu
290     295     300
Thr Trp Asp Ser Tyr Ser Pro Gln Gly Arg Arg Pro Glu Thr Gln Gly
305     310     315     320
Pro Lys Tyr Cys His Ser Ser Phe Asp Ala Ile Thr Val Asp Arg Gln
325     330     335
Gln Gln Leu Tyr Ile Phe Lys Gly Ser His Phe Trp Glu Val Ala Ala
340     345     350
Asp Gly Asn Val Ser Glu Pro Arg Pro Leu Gln Glu Arg Trp Val Gly
355     360     365
Leu Pro Pro Asn Ile Glu Ala Ala Ala Val Ser Leu Asn Asp Gly Asp
370     375     380
Phe Tyr Phe Phe Lys Val Gln Ser
385     390

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&lt;210&gt; 469

&lt;211&gt; 851

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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<400> 469
Met Ala Gln Trp Glu Met Leu Gln Asn Leu Asp Ser Pro Phe Gln Asp
1      5      10      15
Gln Leu His Gln Leu Tyr Ser His Ser Leu Leu Pro Val Asp Ile Arg
20
Gln Tyr Leu Ala Val Trp Ile Glu Asp Gln Asn Trp Gln Glu Ala Ala
35      40      45
Leu Gly Ser Asp Asp Ser Lys Ala Thr Met Leu Phe Phe His Phe Leu
50      55      60
Asp Gln Leu Asn Tyr Glu Cys Gly Arg Cys Ser Gln Asp Pro Glu Ser
65      70      75      80
Leu Leu Leu Gln His Asn Leu Arg Lys Phe Cys Arg Asp Ile Gln Pro
85      90      95
Phe Ser Gln Asp Pro Thr Gln Leu Ala Glu Met Ile Phe Asn Leu Leu
100      105      110
Leu Glu Glu Lys Arg Ile Leu Ile Gln Ala Gln Arg Ala Gln Leu Glu
115      120      125
Gln Gly Glu Pro Val Leu Glu Thr Pro Val Glu Ser Gln Gln His Glu
130      135      140
Ile Glu Ser Arg Ile Leu Asp Leu Arg Ala Met Met Glu Lys Leu Val
145      150      155      160
Lys Ser Ile Ser Gln Leu Lys Asp Gln Gln Asp Val Phe Cys Phe Arg
165      170      175
Tyr Lys Ile Gln Ala Lys Gly Lys Thr Pro Ser Leu Asp Pro His Gln
180      185      190
Thr Lys Glu Gln Lys Ile Leu Gln Glu Thr Leu Asn Glu Leu Asp Lys
195      200      205
Arg Arg Lys Glu Val Leu Asp Ala Ser Lys Ala Leu Leu Gly Arg Leu
210      215      220
Thr Thr Leu Ile Glu Leu Leu Leu Pro Lys Leu Glu Glu Trp Lys Ala
225      230      235      240
Gln Gln Gln Lys Ala Cys Ile Arg Ala Pro Ile Asp His Gly Leu Glu
245      250      255
Gln Leu Glu Thr Trp Phe Thr Ala Gly Ala Lys Leu Leu Phe His Leu
260      265      270
Arg Gln Leu Leu Lys Glu Leu Lys Gly Leu Ser Cys Leu Val Ser Tyr
275      280      285
Gln Asp Asp Pro Leu Thr Lys Gly Val Asp Leu Arg Asn Ala Gln Val
290      295      300
Thr Glu Leu Leu Gln Arg Leu Leu His Arg Ala Phe Val Val Glu Thr
305      310      315      320
Gln Pro Cys Met Pro Gln Thr Pro His Arg Pro Leu Ile Leu Lys Thr
325      330      335
Gly Ser Lys Phe Thr Val Arg Thr Arg Leu Leu Val Arg Leu Gln Glu
340      345      350
Gly Asn Glu Ser Leu Thr Val Glu Val Ser Ile Asp Arg Asn Pro Pro
355      360      365
Gln Leu Gln Gly Phe Arg Lys Phe Asn Ile Leu Thr Ser Asn Gln Lys
370      375      380
Thr Leu Thr Pro Glu Lys Gly Gln Ser Gln Gly Leu Ile Trp Asp Phe
385      390      395      400
Gly Tyr Leu Thr Leu Val Glu Gln Arg Ser Gly Gly Ser Gly Lys Gly
405      410      415
Ser Asn Lys Gly Pro Leu Gly Val Thr Glu Glu Leu His Ile Ile Ser
420      425      430
Phe Thr Val Lys Tyr Thr Tyr Gln Gly Leu Lys Gln Glu Leu Lys Thr
435      440      445
Asp Thr Leu Pro Val Val Ile Ser Asn Met Asn Gln Leu Ser Ile
450      455      460
Ala Trp Ala Ser Val Leu Trp Phe Asn Leu Leu Ser Pro Asn Leu Gln
465      470      475      480
Asn Gln Gln Phe Phe Ser Asn Pro Pro Lys Ala Pro Trp Ser Leu Leu
485      490      495
Gly Pro Ala Leu Ser Trp Gln Phe Ser Tyr Val Gly Arg Gly Leu
500      505      510

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Asn Ser Asp Gln Leu Ser Met Leu Arg Asn Lys Leu Phe Gly Gln Asn  
 515 520 525  
 Cys Arg Thr Glu Asp Pro Leu Leu Ser Trp Ala Asp Phe Thr Lys Arg  
 530 535 540  
 Glu Ser Pro Pro Gly Lys Leu Pro Phe Trp Thr Trp Leu Asp Lys Ile  
 545 550 555 560  
 Leu Glu Leu Val His Asp His Leu Lys Asp Leu Trp Asn Asp Gly Arg  
 565 570 575  
 Ile Met Gly Phe Val Ser Arg Ser Gln Glu Arg Arg Leu Leu Lys Lys  
 580 585 590  
 Thr Met Ser Gly Thr Phe Leu Leu Arg Phe Ser Glu Ser Ser Glu Gly  
 595 600 605  
 Gly Ile Thr Cys Ser Trp Val Glu His Gln Asp Asp Lys Val Leu  
 610 615 620  
 Ile Tyr Ser Val Gln Pro Tyr Thr Lys Glu Val Leu Gln Ser Leu Pro  
 625 630 635 640  
 Leu Thr Glu Ile Ile Arg His Tyr Gln Leu Leu Thr Glu Glu Asn Ile  
 645 650 655  
 Pro Glu Asn Pro Leu Arg Phe Leu Tyr Pro Arg Ile Pro Arg Asp Glu  
 660 665 670  
 Ala Phe Gly Cys Tyr Tyr Gln Glu Lys Val Asn Leu Gln Glu Arg Arg  
 675 680 685  
 Lys Tyr Leu Lys His Arg Leu Ile Val Val Ser Asn Arg Gln Val Asp  
 690 695 700  
 Glu Leu Gln Gln Pro Leu Glu Leu Lys Pro Glu Pro Glu Leu Glu Ser  
 705 710 715 720  
 Leu Glu Leu Glu Leu Gly Leu Val Pro Glu Pro Glu Leu Ser Leu Asp  
 725 730 735  
 Leu Glu Pro Leu Leu Lys Ala Gly Leu Asp Leu Gly Pro Glu Leu Glu  
 740 745 750  
 Ser Val Leu Glu Ser Thr Leu Glu Pro Val Ile Glu Pro Thr Leu Cys  
 755 760 765  
 Met Val Ser Gln Thr Val Pro Glu Pro Asp Gln Gly Pro Val Ser Gln  
 770 775 780  
 Pro Val Pro Glu Pro Asp Leu Pro Cys Asp Leu Arg His Leu Asn Thr  
 785 790 795 800  
 Glu Pro Met Glu Ile Phe Arg Asn Cys Val Lys Ile Glu Glu Ile Met  
 805 810 815  
 Pro Asn Gly Asp Pro Leu Leu Ala Gly Gln Asn Thr Val Asp Glu Val  
 820 825 830  
 Tyr Val Ser Arg Pro Ser His Phe Tyr Thr Asp Gly Pro Leu Met Pro  
 835 840 845  
 Ser Asp Phe  
 850

&lt;210&gt; 470

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 470

Met Gly Lys Val Lys Val Gly Val Asn Gly Phe Gly Arg Ile Gly Arg  
 1 5 10 15  
 Leu Val Thr Arg Ala Ala Phe Asn Ser Gly Lys Val Asp Ile Val Ala  
 20 25 30  
 Ile Asn Asp Pro Phe Ile Asp Leu Asn Tyr Met Val Tyr Met Phe Gln  
 35 40 45  
 Tyr Asp Ser Thr His Gly Lys Phe His Gly Thr Val Lys Ala Glu Asn  
 50 55 60  
 Gly Lys Leu Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg  
 65 70 75 80

Asp Pro Ser Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val  
                   85                  90                  95  
 Glu Ser Thr Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu  
                   100                  105                  110  
 Gln Gly Gly Ala Lys Arg Val Ile Ile Ser Ala Pro Ser Ala Asp Ala  
                   115                  120                  125  
 Pro Met Phe Val Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu  
                   130                  135                  140  
 Lys Ile Ile Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu  
                   145                  150                  155                  160  
 Ala Lys Val Ile His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr  
                   165                  170                  175  
 Thr Val His Ala Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser  
                   180                  185                  190  
 Gly Lys Leu Trp Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro  
                   195                  200                  205  
 Ala Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu  
                   210                  215                  220  
 Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val  
                   225                  230                  235                  240  
 Ser Val Val Asp Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp  
                   245                  250                  255  
 Asp Ile Lys Lys Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly  
                   260                  265                  270  
 Ile Leu Gly Tyr Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser  
                   275                  280                  285  
 Asp Thr His Ser Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn  
                   290                  295                  300  
 Asp His Phe Val Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr  
                   305                  310                  315                  320  
 Ser Asn Arg Val Val Asp Leu Met Ala His Met Ala Ser Lys Glu  
                   325                  330                  335

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&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; NAP4 Probe

&lt;400&gt; 471

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&lt;210&gt; 472

22

&lt;211&gt; 19

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

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